DEPARTMENT OF THE ARMY HEADQUARTERS, UNITED STATES ARMY, ALASKA Fort Richardson, Alaska 99505-5000

United States Army Alaska Regulation 385-1

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Safety

United States Army Alaska Safety Program

Summary. This regulation provides written safety policy, responsibilities and procedures to protect and preserve United States Army Alaska (USARAK) and United States Army Garrison (USAG) Alaska personnel and property against accidental loss. It establishes a safe and healthful work environment and promotes safe operating practices and employment conditions.

Applicability. This regulation applies to all military and civilian personnel assigned, attached, or employed by USARAK and USAG-AK, to non-Army personnel, contractor employees, family members, visitors, foreign nationals, tenant units or activities, and all property or equipment controlled or used in the command's mission.

Supplementation. Supplementation of this regulation is prohibited without prior approval from the USARAK Safety Office, Attention: APVR-RDZ.

Interim changes. Interim changes to this regulation are not official unless the Director of Information Management authenticates them. Users will destroy interim changes on their expiration date unless superseded or rescinded sooner.

Suggested improvements. This regulation's proponent agency is the USARAK Safety Office. The USARAK Safety Office invites users to send comments and suggested improvements on Department of the Army Form (DA) 2028 (Recommended Changes to Publications and Blank Forms) directly to APVR-RDZ.

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This regulation supersedes United States Army Alaska (USARAK) Regulation 385-1, dated 15 November 1997 and USARAK Regulation 95-4 dated 31 May 1996.

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Chapter 1 General

1-1. Purpose

This regulation establishes policies, assigns responsibilities, provides guidelines for implementing, managing, and conducting the USARAK and USAG safety and occupational health program per state, federal and Army regulations (ARs).

1-2. References

Required and related publications and referenced forms are listed in appendix A.

1-3. Explanation of abbreviations and terms

An explanation of abbreviations used in this publication is in the glossary.

1-4. Policy

Safety is imperative to mission success. The command's safety policy is to minimize accidents by integrating safety through risk management into every mission performed. The intent of the safety program is to maintain a safe and healthful work environment, protect and preserve Army personnel and equipment, provide for public safety incidental to Army operations, and assure statutory and regulatory compliance.

1-5. Responsibilities

- a. Commander USARAK, as the installation senior mission safety officer, will-
- (1) Provide leadership and necessary resources to fully implement and administer all aspects of the Command Safety Program per AR 385-10, United States Army Pacific Command (USARPAC) Regulation 385-1, and this regulation.
- (2) Establish an installation safety and occupational health advisory council composed of management, a union designated representative, military and civilian personnel to make recommendations to the commander and perform additional tasks as the commander or the council direct.
- (3) Chair the safety and occupational health advisory council. In the absence of the USARAK commander, the chief of staff, deputy commanding officer or a designated senior management official will chair the safety and occupational health advisory council. The council will meet periodically (at least semi-annually) or at the call of the chairperson.
 - b. Commander USAG, Alaska as the senior garrison safety officer will-
- (1) Provide leadership and necessary resources to fully implement and administer all aspects of the Installation Safety Program in accordance with AR 385-10 and this regulation.
- (2) Establish an effective installation safety and occupational health and accident prevention program in support of the USARAK senior mission commander's safety and occupational health program.
- (3) Serve as the senior garrison safety officer on the installation safety and occupational health advisory council.

- c. The USARAK director of safety will-
- (1) Exercise staff supervision and oversight of the command's safety and occupational health program.
- (2) Develop and implement plans and programs to integrate risk management into all aspects of the command's safety program.
 - (3) Be a member of the commander's special staff reporting directly to the commander.
- (4) Meet the Office of Personnel Management standards for the position of safety and occupational health manager.
- (5) Ensure that safety and occupational health procedures are in place, facilities and equipment are in compliance with federal, state, local statutes and regulations, and the local labor agreement.
- (6) Ensure that safe practices and procedures that minimize accident risk are developed and incorporated into local regulations, directives, standing operating procedures (SOPs), special orders, training plans, and operations plans for all operations.
- (7) Serve as the safety career program manager and provide specialized training to the safety staff to enable them to properly execute their safety and occupational health responsibilities.
- (8) Ensure continuity of safety and occupational health and the risk management process during tactical operations, mobilization and deployments.
 - (9) Develop programs and policy for reporting unsafe or unhealthful conditions.
- (10) Ensure that standard Army safety and occupational health inspections are performed to evaluate the command's safety program and risk management integration.
 - d. Mission and installation safety managers will-
 - (1) Implement accident prevention and loss control measures and programs.
 - (2) Assist commanders in preparing safety SOPs.
- (3) Organize, coordinate, and conduct safety inspections, surveys, and workplace monitoring programs to identify violations, hazards, and deficiencies in the operations of facilities and equipment. Ensure local union office is notified of scheduled safety inspections and subject to AR 385-10, Chapter 4-1c and d, be given the opportunity to accompany the safety manager/specialist during the inspection of areas where bargaining unit members are employed.
- (4) Record safety and health violations and deficiencies, coordinate actions for correction, and conduct follow-up inspections.
- (5) Ensure accident-reporting requirements. Maintain complete and accurate records on accidents, injuries, and occupational illnesses.
- (6) Assist commanders in conducting accident investigations, preparing accident reports, identifying causal factors, determining trends, and initiating program improvement actions.
- (7) Maintain liaison with plan and design officials on facilities, designs, plans, and specifications from the safety and health standpoint, and integrate safety precautions into all plan and design efforts.

- (8) Develop, coordinate, and conduct unit additional duty safety officer/NCO training and civilian collateral safety officer training. Conduct safety training programs, required specific safety refresher training and where conditions warrant, specialized safety training.
- (9) Provide advice to commanders, guidance to organizational elements and supervisors regarding technical aspects of safety, principles of hazard recognition, and safety principles as they relate to employees in the workplace.
- (10) Serve as the technical authority in the procurement of approved personal protective equipment (PPE) and coordinator for all facets of the personal protection, noise control, and sight conservation programs.
- (11) Analyze investigation reports of accidents (regardless of who makes the investigation) and make recommendations to the commander for corrective action.
- (12) Establish written goals and objectives for the applicable safety and occupational health program and continued evaluation of program's performance.
- (13) Implement the hazard reporting system that provides employees with a method of reporting unsafe or unhealthful conditions.
 - e. Commanders and directors will-
- (1) Develop a written safety SOP, maintain safe operations and practices, and prevent accidents within their respective organization.
- (2) Enforce safety work procedures, good housekeeping practices, and Personal Protective Equipment (PPE) use.
 - (3) Administer proper corrective action for violation of safety and health rules.
 - (4) Ensure thorough training in proper job procedures and safety practices for all employees.
- (5) Appoint additional duty safety personnel in writing and provide a copy to the appropriate safety office.
 - (6) Ensure compliance with all safety training and medical surveillance programs.
 - (7) Promptly abate all safety and health deficiencies.
 - (8) If appointed, serve as a member of the Safety and Occupational Health Advisory Council.
 - (9) Ensure inclusion of safety standards in supervisors' performance appraisals.
 - (10) Budget and fund for safety supplies, equipment, and training.
 - (11) Ensure that all alleged unsafe and unhealthful conditions reported are investigated.
 - (12) Ensure expeditious reporting and investigation of all accidents per AR 385-40.
- (13) Ensure all Army accidents involving personal injury and/or damage to government equipment, no matter how minor, are properly reported, investigated, and the appropriate accident reports are submitted to the responsible mission or installation safety office.

- f. Managers and supervisors will-
- (1) Ensure the safety of all military and civilian employees within their organizations, ensure safe workplace conditions, and enforce safety rules and regulations.
 - (2) Correct, eliminate, and report all unsafe or unhealthful working conditions within their organization.
- (3) Provide appropriate safety and/or PPE; e.g., clothing, goggles, masks, etc., when employees face potentially hazardous conditions.
- (4) Investigate all accidents involving personal injury and property damage to government equipment, no matter how minor. Submit the accident reports to the appropriate mission or installation safety office.
 - (5) Arrange immediate medical care and attention for employees injured on the job.
 - (6) Implement all federal and DA safety rules and regulations.
- (7) Conduct safety inspections within their organization, correct deficiencies, and maintain property and equipment in safe operating condition at all times.
- (8) Ensure effective implementation of safety and occupational health policies and integration of the risk management process within their organization.
 - (9) Ensure compliance with all safety training and medical surveillance programs.
- (10) Post potential safety and health alerts, bulletins, and precautionary notices in an area that is easily accessible to all employees.
 - g. Military and civilian employees will-
- (1) Immediately report all occupational injuries or illnesses, no matter how minor, to their supervisor and report for medical treatment, as soon as possible.
 - (2) Abide by all verbal or written safety rules given by a supervisor and/or safety professional.
 - (3) Accomplish work in a manner that will ensure their own and other employees' safety and health.
- (4) Report all unsafe or unhealthful working conditions to their supervisor and/or the appropriate safety office.
- (5) Use and maintain all personal protective clothing and equipment specified for the safe performance of their duties.
 - (6) Report to all medical examination and training appointments as scheduled.
 - g. Unit additional duty safety personnel and civilian collateral safety personnel will-
 - (1) Maintain a unit/organization safety program continuity binder.
- (2) Conduct and document quarterly safety inspections within their organization and recommend corrections for deficiencies found.

- (3) Implement an accident prevention program and advise the commander on the status of the organization's safety program.
 - (4) Assist supervisors in developing accident prevention programs.
- (5) Advise the commander in achieving desired integration of risk management and accident prevention with mission accomplishment.
 - (6) Attend the safety and occupational health advisory council meeting.
- (7) Motivate and promote Soldiers and supervisors to be involved in and provide ideas to improve the organization's safety program.
 - (8) Provide safety guidance and training to the unit.
- (9) Inform the local union office of the date, time and place of a scheduled safety inspection where bargaining unit members are employed.

Chapter 2 Risk Management

2-1. Purpose

This chapter establishes policy and program requirements for integrating risk management into all phases of training and daily operations.

2-2. General

Risk management is the primary technique used for accident prevention. Risk management is an analytical tool that is used to systematically assess, eliminate or reduce risks associated with any operation or action. Risk management must be a routine part of planning and executing operational missions.

2-3. Responsibilities

- a. Leaders must demonstrate consistent and sustained risk-management behavior through leading by example, habitually using risk management, and actively participating throughout the risk-management process. Subordinates follow and learn from the actions of leaders in the performance of their duties and safety is no exception. Soldiers will develop a "sixth safety sense" after they are exposed to repetitive words and deeds that reflect leaders' risk-management philosophy.
- b. Leaders at all levels will utilize the risk-management process to integrate safety into planning and implementation phases of all operations to effectively accomplish the mission and provide protection against accidental losses of personnel and equipment.
- c. Leaders will utilize Field Manuals (FMs) 3-100.12, 100-14, and 101-5. FM 101-5 explains the risk-management doctrine and how it applies across a wide range of Army operations. FM 100-14 establishes risk-management standards and explains principle procedures and responsibilities to successfully apply the risk-management process. This manual must be consulted when developing risk assessments to effectively conserve combat power and resources. FM 3-100.12, is Risk Management Multiservices Tactics, Techniques and Procedures for Risk Management. These manuals apply to both military and civilian personnel during all Army activities, including joint, multinational, and interagency environments.
- d. Risk decisions are commanders' business. However, commanders will not accept unnecessary risks. Commanders compare and balance risks against mission expectations and accept risks only if the benefits outweigh the potential costs or losses. Commanders alone decide whether to accept the level of residual risk to accomplish the mission or elevate the decision to the next level of command.
- e. Risk decisions should be made at the appropriate level. Decision levels for residual risks are as follows:
 - (1) Extremely high. Commander USARAK.
 - (2) High. Brigade commander/DCO.
 - (3) Moderate. Battalion commander.
 - (4) Low. Company commander.

2-4. Training mission or task risk assessments

- a. All training missions require a written risk assessment. The term "training mission" as used herein includes training operations or training task(s).
- b. Written risk assessments will be maintained for the duration of the training mission and for future reference. The minimum retention period is for one year or next similar exercise/operation, which ever occurs first. Organizations are allowed to re-use previous risk assessments if there are no changes to the training mission at hand.
- c. Mission, enemy, terrain and weather, troops and time available (METT-T) provide a solid framework for identifying hazards when planning, preparing and executing operations.

2-5. Procedures

- a. After a careful mission analysis and application of risk management to METT-T factors, the five-step risk management process should be applied:
 - (1) Identify hazards
 - (2) Assess hazards to determine risks
 - (3) Develop controls and make risk decisions
 - (4) Implement Controls
 - (5) Supervise and evaluate
- b. The risk-management work sheets in FM 100-14, appendix 2 through 10 will be use to document application of the 5-step risk management process for mission or individual tasks during the planning, preparation, and execution of training and combat missions. (See figure 2-1)
- c. Deliberate risk management is the application of the complete 5-step risk management process when time is not critical. It primarily uses experience and brainstorming to identify threats or hazards and develop controls and is, therefore, most effective when done in a group. Examples of deliberate applications include planning upcoming operations, reviewing standing operating procedures (SOP), maintenance, training and developing damage control or disaster response plans.
- d. Crisis Action risk management (formerly hasty risk management) is an "on-the-run" mental or verbal review of the situation using the basic risk management process. The crisis action process of risk management is employed to consider risk while making decisions in a time-compressed situation. This level of risk management is used during the execution phase of training or operations as well as in planning and execution during crisis response. It is particularly helpful for choosing the appropriate course of action when an unplanned event occurs.
- e. The standard Army risk assessment matrix (figure 2-2) will normally be used to rate the degree of risk. This will serve to standardize the degree of risk terminology. Normally, a risk rated as "extremely high risk" (EHR) on the matrix will be a risk that can be accepted at the highest deployed commanders level for the operation. The highest level commander in the deployed area of operation will be the EHR authority. Risk decisions should be elevated to the next higher level of command if appropriate assets, resources or expertise are not available at that level to reduce the degree of risk to an acceptable level.

f. Review of risk assessment procedures should be a part of every accident investigation to determine if risks were properly assessed and if adequate controls were in place and if risk management decisions were elevated to the proper level.

1. Organization and U	nit l	Locat	tion:							2	2. Page	of
3. Mission/Task:					4. Date/Time Group				5.	Date Pr	repared:	:
					Begin:							
					End:							
6. Prepared By: (Rank,	Na	me l	Duty	Pos	sition)							
7. Operational Phase	ın w	hich	the	IVIIS	sion/Task will be conducte	ed:						
8. Identified Hazards	Ha	Asso zards tial R	s:		10. Develop Control Measures for Identified Hazards:Specific measures taken to reduce the probability and severity of a hazard).	De Re	. Ma cisio main ks:	ns:	isk	12. H Impler Contro Include Referen Written Verbal etc).	ols: SOP's, ices, and	13. Supervision and Evaluation By: (Continuous Leader Checks, Buddy System, SITREP, etc).
	L	М	н	Е		L	М	Н	Е			
14. Remaining Risk Le	vel <i>i</i>	After	Сог	ınte	rmeasures are Implemente	d: (d	circle	one	e).			
LOW (L)		МО	DER	ATE	E (M) HIGH (H) E	XTR	EME	LY F	IIGH	I (E)		
AE DIOV DEGICION AI		0017	- ,			ь.						

15. RISK DECISION AUTHORITY: (Approval Authority Signature Block)

If initial Risk Level is High or Extremely High, brief risk decision authority at that level on controls and countermeasures used to reduce risks. (Signature indicates that the appropriate risk decision authority was briefed on the initial risk level, control measures developed, appropriate resources requested and residual risk is acceptable).

Figure 2-1

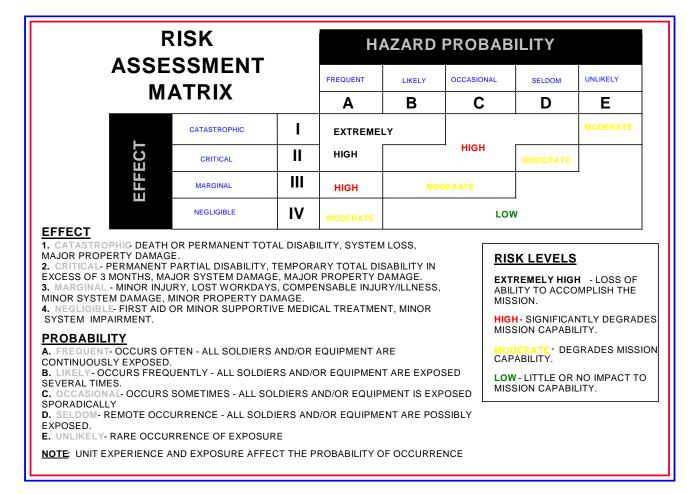


Figure 2-2. Risk Assessment Matrix

2-6. Fratricide risk assessment

- a. Fratricide is the employment of weapons and ammunition with intent to kill the enemy or destroy his/her equipment or facilities that results in unforeseen and unintentional death or injury to friendly personnel.
- b. Fratricide incidents are caused by many contributing factors or preconditions. As an example, incomplete planning or poor maneuver control can cause forces to converge or intermingle on the battlefield. This density increases the likelihood of a friend-on-friend engagement as the battle tempo increases. Mistakes in this environment can result in tragic losses that may have been prevented by well-trained leaders and Soldiers.
- c. Fratricide's effects can be devastating. Fratricide increases the risk of unacceptable losses and mission failure. While it will be difficult to completely eliminate fratricide, well-trained leaders, supervisors, and Soldiers can contribute greatly to reducing fratricide risk. The Center for Army Lessons Learned at the United States Army Combined Arms Command in Fort Leavenworth, Kansas, has published in the Center for Army Lessons Learned Handbook (Edition 92-3, March 1992, Fratricide Risk Assessment for Company Leadership and 92-4, April 1992, Fratricide, Reducing Self-Inflicted Losses). This is excellent quidance for conducting fratricide risk assessment and management controls for war-fighting leaders. Using the handbooks assist commanders and leaders in planning the use of weapons and ammunition in handbooks training and combat. Α copy of these is available online

http://call.army.mil/Products/HANDBOOK/92-3/92-3TOC.htm http://call.army.mil/Products/NEWSLTRS/92-4TBLCON.HTM

d. Training restrictions, such as surface danger zones and limits of fire, are frequently considered training detractors and can be used in fratricide prevention and range safety. In real world situations, units will have friendly forces on their flanks that will impose fire and maneuver restrictions. By using friendly positions as the reason for surface danger zones and limits of fire in training, fratricide prevention will become a part of routine training.

Chapter 3 Hazard Communication Program

3-1. Purpose

This written program's purpose is to ensure that the command is in compliance with the Occupational Safety and Health Administration (OSHA), Hazard Communication Standard (29 Code of Federal Regulations (CFR) 1910.1200), Department of Defense Instruction (DODI) 6050.5 Hazard Communication Program, and to reduce the risk of injury or illness caused by hazardous chemicals in the workplace.

3-2. General

- a. The hazard communication standard was established to ensure that all hazardous chemicals are identified and labeled to prevent inadvertent harm to employees. Federal law and the DOD require that civilian employees and military personnel comply with this standard.
- b. Supervisors, military and civilian, will schedule and conduct training to inform employees of potential hazards associated with hazardous chemicals in the workplace under the employee right-to-know provisions of this standard. Safety offices are available to train supervisors on the Hazard Communication Program and/or assist supervisors in the preparation and presentation of the training.

3-3. Training

All personnel who are potentially exposed to hazardous chemicals will be trained in the areas of labeling and use of material safety data sheets (MSDSs), which describe all hazards, PPE required, and safety procedures for chemicals they use.

3-4. Definition of hazardous chemicals

A hazardous chemical is any chemical whose presence or use is a physical hazard (explosive, flammable, reactive, etc.) or a health hazard (carcinogen, toxin, irritant, etc.).

3-5. Hazard labeling (supervisory responsibility)

- a. All containers of hazardous chemicals will be appropriately labeled. All labels on containers with hazardous chemicals will display adequate warning statements per appropriate standards. Data will include an appropriate hazard warning and sufficient identification to match all contents to the proper MSDS.
- b. All labels must be legible, in the English language, prominently displayed, or readily available in the work area throughout the shift.
 - c. Relabeling of hazardous chemicals received from commercial suppliers is not required.
 - d. Container labels shall contain the—
 - (1) Chemical's identity.
 - (2) Appropriate warnings.
 - (3) Manufacturer or importer name and address.

- e. Under the Hazardous Materials Transportation Act, container labels must not conflict with the regulations issued by the Department of Transportation. If the substance is specifically regulated by OSHA, the labels must comply with those regulations.
 - f. These three situations are exempt from or allowed alternatives to the labeling requirements:
- (1) In laboratories, labels on incoming containers of hazardous chemicals will not be removed or defaced. In laboratories only, containers such as test tubes or flask beakers in use need not to be labeled with an identifier and hazard warning as defined by the United States Army Health Services Command.
- (2) Individual stationary process containers, where the required information is conveyed by an alternative method, such as signs, placards, and other written forms of warning. The alternative labeling method must provide the same information as Defense Department (DD) Form 2521 (Hazard Chemical Warning Label) and DD Form 2522 (Hazard Chemical Warning Label).
- (3) Portable containers of hazardous chemicals that are intended only for the immediate use of employees who have transferred the chemical from a labeled container (immediate use is defined as within an 8-hour work period).
- g. Labeling requirements do not apply to the following substances as long as they are subject to labeling requirements of other federal agencies:
 - (1) Pesticides.
 - (2) Food, drugs, and cosmetics.
 - (3) Alcoholic beverages.
 - (4) Household consumer products governed by the Consumer Product Safety Commission.
- h. No warning information, whether provided by manufacturers or locally produced, will be defaced or removed from a container of chemicals.
- i. A standard form or label will be used to communicate hazard-warning information to employees in the workplace. Labeling requirements are prescribed in 49 CFR 172.400. The label and data descriptions will be used to meet OSHA hazard communication standard labeling requirements for—
 - (1) Prepackaged containers of hazardous chemicals.
- (2) Marking tanks or similar vessels of hazardous chemicals in lieu of placards, stencils, or other methods.
- (3) Unlabeled hazardous chemicals already in the local supply inventory when appropriate MSDSs or labeling parameters are available from the Hazardous Material Information System.
 - (4) When transferring or storing hazardous chemicals/materials to unlabeled containers.
- j. Hazard warning information in other languages may supplement the English version of the hazard-warning label where appropriate.
- k. All empty containers will be identified until thoroughly decontaminated or until disposed of properly. Warning labels will be removed from decontaminated containers before being released for other uses.
- I. Present stocks of hazardous chemicals marked with local, hazard-communication-standard-compliance labels need not be relabeled with DOD labels.

3-6. Hazardous locations and inventory

- a. Each location where hazardous chemicals are used or stored will maintain a current inventory. Inventories will be updated immediately when new items are received or at least annually.
- b. Maps showing the locations of hazardous chemicals and materials (in large quantities) should be provided to the directorate of public works, fire and emergency services.

3-7. Material safety data sheets (MSDS)

- a. Purchasers of hazardous chemicals will know the purpose for which the chemical is purchased and will not accept delivery of the chemical without proper labeling and an MSDS. If specific MSDSs are not included with shipment, contact the local safety office for assistance.
- b. All MSDS contents will meet or exceed the data requirements of OSHA Form 174 (MSDS (Nonmandatory Form)). All applicable elements of the MSDS will be completed.
- c. Activities producing or compounding hazardous materials will write or acquire an MSDS. The original must be completed by a technically competent person.
- d. Department of the Army (DA) will provide MSDS sheets for all military-unique chemicals produced by DA to subsequent users and affected workers. Also, hazard determinations will be made per the OSHA Hazard Communications Standard.
- e. Neither new MSDSs nor hazard determinations (29 CFR 1910.1200) are required for those hazardous chemicals that are recycled or distilled by DA personnel.
- f. MSDSs for locally purchased items and nonstandard stock hazardous chemicals will be acquired according to procedures in AR 700-141.
- g. If MSDSs are not received with the shipment of locally purchased hazardous chemicals, the items will not be used until a satisfactory MSDS in available. Contact the local safety office for assistance.
- h. Critical differences can exist between similarly named chemicals and products, therefore, identification and correct matching is required. Questions will be resolved through consultation with the local safety office.
- i. Copies of MSDSs will be maintained in a designated central location in the work area for all personnel, providing ready access during each work shift. Anyone who questions a material's safety will not be required to use it until an approved MSDS is provided and all hazards and protective procedures have been explained.
- j. All workplace supervisory personnel will have on hand MSDSs that are applicable to their work area, identifying the application and handling of the chemical, emergency measures to be taken, body parts affected, protective clothing and equipment to use.
 - k. Employee training and information will include the following:
- (1) Employees will be provided with information and training about all hazardous chemicals in their work areas at the time of their initial job assignment and whenever a new hazard or chemical is introduced into the work area. Information and training will be based on job responsibilities and the risks from basic program information to hands-on material handling.

- (2) Supervisors will display a notice on a bulletin board in the workplace stating that the command has a written hazard communication program. This notice will state the—
 - (a) Location of the written program.
 - (b) Location of the chemical inventory.
 - (c) Location of MSDSs.
 - (d) Name and location of the program manager.
- (3) The training will be per 29 CFR 1910.1200, Hazard Communication Standard. Proof of training will become part of the employees' permanent record.

3-8. Trade secrets

- a. Protection of trade secret information is required. Lawful restrictions on the use of information provided directly by manufactures or suppliers must be honored. Penalties are applicable in case of unauthorized release. For assistance with trade secret controversies, contact the local safety office.
- b. Immediate trade-secret disclosure will be made available only to the employee and their health care professional. An employee's designated representative may request trade-secret information.
- c. Anyone who obtains trade-secret information in an emergency may be required to sign a written statement of need and confidentiality; however, the demand that the statement be signed cannot be used as a condition of disclosure.

3-9. Contractor operations

- a. Employees performing contract work on Army installations will be covered by their employer's hazard communication program. The installation's hazard communication program will establish procedures to inform contractors of possible chemical exposures to their employees.
- b. Contractors, whose operations could expose DOD personnel to hazardous chemicals, will provide equivalent information to the installation contracting officer before introducing hazardous chemicals in areas where DOD personnel are potentially exposed.
- c. Installation contracting officers will ensure that potentially exposed DOD personnel receive hazardous information developed by the contractor.

3-10. Standing operating procedures

Each work center must have on file a written SOP outlining how they comply with the hazard communication standard. An example is shown at appendix B.

Chapter 4 Respiratory Protection Program

4-1. Purpose

This chapter's purpose is to implement the installation respiratory protection program as required by AR 11-34, Technical Bulletin Medical (TB Med) 502, and 29 CFR 1910.134.

4-2. General

- a. The installation has a commitment to provide a safe and healthful workplace for its personnel and to fully implement a respiratory protection program. The installation will provide respiratory protection equipment, at no cost, to personnel for protection against chemical and other respiratory hazards when the following conditions exist:
- (1) When the installation medical authority is satisfied that engineering or work practice controls are not adequate to control the hazard.
 - (2) During intermittent, nonroutine operations not exceeding 1 hour per week.
 - (3) During interim periods while engineering controls are being designed, funded, and installed.
 - (4) During emergencies, e.g., spill response, damage control, etc.
 - (5) When required by federal regulation or operating license.
- b. Safety and health standards establish permissible exposure limits for airborne concentrations of potentially hazardous dusts, fumes, mists, and vapors. When engineering and administrative controls are not feasible, as an interim step implement a respiratory protection program governing respirator selection, use, maintenance, and issue of appropriate respirators to employees. Only National Institute for Occupational Safety and Health and/or Mine Safety and Health Administration-approved respirators will be used.

4-3. Responsibilities

- a. The USAG, Alaska commander has overall responsibility for establishing the respiratory protection program per AR 11-34 and 29 CFR 1910.134. The USAG, Alaska commander will—
- (1) Provide sufficient funds, facilities, and qualified personnel to perform, effectively and efficiently, all duties required by the respiratory protection program.
- (2) Appoint an installation respiratory program director to perform the duties in AR 11-34, paragraph 2-7 and appoint a qualified individual from the installation staff to act as the installation respirator specialist.
- b. The designated installation safety and occupational health (SOH) manager and the installation medical authority, chief of preventive medicine have overlapping responsibilities for oversight and implementation of the respiratory protection program. I addition to the responsibilities cited in AR 385-10, the installation SOH manager will coordinate with the installation medical authority to perform the duties listed in AR 11-34, paragraph 2-5. The installation medical authority will—
- (1) Coordinate with the designated installation SOH manager to ensure the success of the respiratory protection program.

- (2) Provide guidance, direction, assistance, and support to the installation respiratory program director to ensure the effectiveness of the respiratory protection program.
 - (3) Provide all services and perform all duties listed in AR 11-34, paragraph 2-6.
- c. The designated installation Chief of Preventive Medicine is appointed as the installation respiratory program director. The installation respiratory program director will—
- (1) Coordinate all aspects of the respiratory protection program with the assistance of the installation medical authority, chief of preventive medicine.
 - (2) Advise commanders and directors of the actions required to ensure the success of the program.
 - (3) Perform the duties listed in AR 11-34, paragraph 2-7.
- d. The industrial hygienist at each Army installation within Alaska is appointed the installation respirator specialist. The installation respirator specialist will—
- (1) Coordinate all aspects of the respiratory protection program with the assistance of the respective installation SOH manager.
- (2) Advise commanders, directors, and supervisors of actions required to ensure the success of the program and provide assistance when needed.
- (3) Perform the duties listed in AR 11-34, paragraph 2-8, however inventory of respirators and replacement parts will be maintained IAW paragraph 4.3 f (2) below.
- e. The civilian personnel advisory center will provide administrative and training support identified by the installation respiratory program director as required by law or as required for the success of the respiratory protection program.
- f. Commanders, directors, and supervisors who have personnel required to use respirators will appoint a unit/organization respirator specialist who will—
- (1) Request that preventive medicine conduct health hazard evaluations of existing, new, or modified work operations using hazardous materials or chemicals to ensure specification of appropriate respirators.
- (2) Budget for and provide respiratory protection equipment to personnel when required for their work. Issue personal respirators to qualified respirator users.
- (3) Ensure workers use respirators according to this regulation and local SOPs. Familiarize workers with SOPs on respirator use.
 - (4) Ensure all respirator users and their supervisors receive annual respirator training.
 - (5) Ensure scheduling of all respirator users for annual medical examinations and fit-tests.
 - (6) Ensure all users of negative pressure respirators perform a pre-use fit check before each use.
- (7) Maintain all records pertaining to respirator training, fit testing, and employee exposures to respiratory hazards such as welding fumes and hazardous material/hazardous waste spills.

- (8) Develop, implement, and maintain a respiratory protection program SOP. Obtain approval of the SOP from the installation respirator specialist, or the installation SOH health manager before publication. A sample SOP is at appendix C.
- (9) Ensure workers perform proper respirator maintenance and replace deteriorated respirators as needed. Ensure adequate time is provided for cleaning and maintenance of employee respirators.
- (10) Include a statement in the employee's job description that the proper use of protective clothing and equipment is a significant job element and ensure employee performance standards reflect safety and PPE use.
- (11) Coordinate employee fitting for corrective lenses for use inside full facepiece respirators to ensure proper vision. DO NOT permit workers to wear contact lenses when wearing a full-facepiece respirator, helmet, hood, or suit.
- (12) Implement the requirements for rescue and standby personnel in immediately dangerous to life and health situations.
- (13) NOT permit workers to perform tasks requiring respiratory protection when a respirator is not being worn, an effective fit cannot be obtained or without a current fit test on record.
 - g. Respirator users will-
 - (1) Fit check respirators before each use and use respirators according to this instruction.
 - (2) Report any problems involving the use of respirators to the supervisor.
 - (3) Inspect and repair respirators before use and clean and disinfect respirators after use.
 - (4) Store respirators in accordance with OSHA 29 CFR 1910.134.
- (5) Comply with the requirements of this regulation and the organization's SOP. Failure to comply may result in administrative action.

4-4. Respirator selection

Selection of respirator type will be coordinated with and approved by the installation respirator specialist, or the installation SOH manager before purchase.

4-5. Respirator use

- a. Use only respiratory protective equipment approved by the installation respirator specialist or the installation SOH manager. Management and supervisors will provide cartridges with "end of service life indicators". If respirator "end of service life indicator" does not exist, a written program will specify change-out schedule.
 - b. Do not make modifications or substitutions to the respirators.
- c. Only the person issued the respirator may use it. If multiple personnel share a respirator, it must be cleaned and disinfected before each use.
- d. Individuals with interfering facial hair will not be fitted for respirators. If the individual has the option of wearing a different respirator that will allow for facial hair and chooses that option, that respirator must

be the one used by the employee. Interfering facial hair is any facial hair that comes between the sealing surface of the face piece and the face or that interferes with the valve function.

- e. The user will inspect the respirator per manufacturer's instructions before donning.
- f. Perform a respirator fit check per the manufacturer's instructions when donning a respirator.
- g. Upon detecting an odor from the work process, developing difficult breathing, or suspecting a leak while using a respirator, leave the work area without delay. Do not reenter until the problem is resolved by replacing cartridges, restoring airflow, or other means, as necessary.
- h. When temporarily removing respirators during breaks in work operations, move away from the work area to prevent worker exposure and to keep the inside of the respirator facepiece clean. Protect respirators from contamination before redonning.
 - i. Clean, disinfect, and return respirators to the storage facility after each use.

4-6. Respirator inspection

Respirator users shall--

- a. Inspect all respirators according to the manufacturer's instructions.
- b. Inspect respirators kept for emergency use monthly. Maintain records of inspection dates and their findings.

4-7. Respirator cleaning and disinfecting

Clean and disinfect respirators after each use according to the guidelines in the SOP in appendix C.

4-8. Respirator storage

- a. Store clean respirators in accordance with OSHA 29 CFR 1910.134.
- b. Store respirators in such a way as to prevent crushing that can result in deformation of the facepiece.

4-9. Repair and maintenance

The user or installation respirator specialist will—

- a. Perform respirator assembly and repair, as authorized.
- b. Not attempt to replace components or to make adjustments or repairs beyond the manufacturers' recommendations or with parts from different manufacturers.

4-10. Medical examinations

- a. A physician or licensed health care professional will medically evaluate all respirator users to ensure that they can wear a respirator and perform the required work without adverse health effects.
- b. Annual physicals will include medical examinations. Personnel may not refuse to undergo medical evaluation and remain on the job that requires respirator use.

c. An optometrist must fit users of prescription eye wear with respirator spectacles when the users wear full-face respirators.

4-11. Training

The installation respirator specialist will—

- a. Instruct and train respirator users and their supervisors in the proper use of respirators, user limitations, and manufacturer's specifications.
 - b. Include the following in annual training:
 - (1) Types of hazardous atmospheres and their effects on worker health.
 - (2) Methods to reduce or eliminate the hazard through engineering controls.
 - (3) Respirator selection, use, capabilities, and limitations.
 - (4) Respiratory protection program requirements.
 - (5) Respirator inspection and maintenance procedures.
 - (6) Respirator donning and fit-testing procedures.

4-12. Fit testing

The installation respirator specialist will provide—

- a. Fit testing users of negative pressure respirators in a test atmosphere annually to ensure proper respirator fit.
 - b. Fit testing per the manufacturer's instructions only after the medical clinic's approval.

4-13. Program evaluation

The installation SOH manager in coordination with the installation respirator specialist will conduct an annual program evaluation to determine program effectiveness using the respiratory protection program inspection guide and taking appropriate actions to correct any discrepancies. A copy of the respiratory protection program inspection guide used for the annual evaluation is at appendix D.

Chapter 5 Confined Space Entry Program

5-1. Purpose

This chapter's purpose is to implement the confined space entry program as required by 29 CFR 1910.146.

5-2. General

- a. This written program establishes requirements, practices, and procedures that provide protection for all personnel who enter or work within confined spaces. These provisions do not relieve the user from the requirements set forth in other applicable statutes and regulations. Any organization that is required to enter a confined space will have an organization-specific SOP for confined space entry. The SOP will outline, in detail, every step of the confined space entry program as it applies to that organization. Each organizational SOP will be reviewed by the appropriate installation safety office for applicability and completeness.
- b. The command must provide a safe and healthful workplace for its personnel and must fully implement the OSHA confined space entry program. Accordingly, personnel working in permit-required confined spaces must be aware of the hazards associated with confined space entry and receive training on how to do so safely.

5-3. Responsibilities

- a. The entry supervisor "authorizing" or "in charge of entry" into a confined space will—
- (1) Ensure a qualified person, trained in confined space entry procedures inspects, evaluates, and classifies the confined space as either "permit required" (permit space) or "nonpermit required" (nonpermit space) before entry, using the pre-entry checklist at figure 5-1.
- (2) Complete and issue USARAK Form 479 (Confined Space Entry Permit) to authorize entry into a permit space and ensure that all measures required by the permit have been complied with. See figure 5-2.
- (3) Ensure that the entry permit is posted at the job site. The entry supervisor will also cancel and terminate the entry permit when the job is completed and retain the permit on file for 1 year.
- (4) Ensure that workers are properly trained and qualified in confined space entry procedures, PPE use, atmospheric measuring equipment operations, emergency procedures, ingress and egress procedures, and have written certification that they have all the required training.
- (5) Conduct a pre-entry briefing for employees about the safety and health hazards that are inherent to the confined space operation being performed.
 - (6) Ensure that all atmospheric testing and monitoring equipment is properly calibrated before use.
- (7) Ensure that all appropriate PPE, clothing, and other equipment, such as respirators, tie vek protective suits, safety goggles, and fresh air ventilators are maintained in safe operating condition and available for employee use for safe entry.
- (8) Inspect the work site to identify and correct hazards associated with tools, equipment, and confined space entry procedures.

- (9) Coordinate assistance from local safety, fire and emergency services, or occupational health officials as required.
- (10) Ensure all valves are isolated, locked out, blinded, or blanked on the system undergoing maintenance to ensure no chemicals, steam, water, or gas are accidentally pumped into the confined space and ensure other systems are safeguarded to prevent accidental exposure.
- (11) Ensure all electrical power is de-energized and locked out on the system undergoing maintenance and ensure energized conductors are guarded to prevent accidental exposure.
- (12) Establish emergency procedures to rescue persons incapacitated in the confined space. This includes—
- (a) Ensuring the ready availability of rescue- and safety-related equipment, such as lifting or retrieval devices and other equipment necessary for the entry, as determined by the permit system.
- (b) Ensuring adequate attachment points outside the confined space for tying off or otherwise securing retrieval lines for all authorized entrants.
- (c) Providing an equivalent method for rescue where retrieval lines themselves may constitute an entanglement hazard or otherwise cannot be used.
- (d) Ensuring that the means of communication (telephone, radio, etc.) for summoning the rescue team are operable.
- (e) Ensuring a shop rescue team is available, and if a shop rescue team is not available, coordinating with fire and emergency services to provide emergency rescue personnel.
 - b. Workers entering confined spaces will—
- (1) Complete (by the lead worker) the pre-entry checklist before entry. This will classify the confined space as either a permit space or a nonpermit space. See figure 5-1.
- (2) Retest the atmosphere before re-entry and record the results on the pre-entry checklist if leaving a confined space for any reason.
- (3) Fully understand all procedures, safeguards, and emergency egress and self-rescue procedures before entry.
- (4) Follow all safe-work procedures required by the safety office, fire and emergency services, occupational health section, and the person authorizing entry into the confined space.
- (5) Not enter a confined space until all provisions of the pre-entry checklist and the issued permit (if necessary) are complied with.
 - c. Attendants will-
 - (1) Remain outside the permit space and will—
 - (a) Not attempt rescue involving entry until the rescue team is notified and assistance arrives.
- (b) Only make rescue efforts by means of the lifeline until assistance arrives. Exception: Due to the increased risk of injury, lifelines will not be used in the utilidors.

- (2) Maintain continuous communications with all authorized entrants within the permit space by voice, radio, telephone, visual observation, or other equally effective means. If it is not possible for one attendant to maintain communications with each entrant because of an entrant's work station in the space, make other arrangements to ensure that the attendant is continuously aware of the location and condition of any entrant who is out of direct communication range.
- (3) Have authority to order entrants to exit the permit space at the first indication of a hazardous condition, an unexpected hazard, or the indication of a toxic reaction (unusual conduct by the entrants).
- (4) Know the procedure and have the means to summon immediate, emergency-rescue assistance if needed.
- (5) Remain at the attendant's post and not leave for any reason except self-preservation unless replaced by an equally qualified individual while entry continues. The attendant will order the entrants to exit the confined space if he/she must leave and there is no qualified replacement.
- (6) Warn unauthorized persons not to enter the permit space or to exit immediately if they have entered. Advise the authorized entrants and others specified by the supervisor if any unauthorized persons enter the permit space.
 - d. Installation safety managers will-
- (1) Ensure, with assistance from fire and emergency services or occupational health section, that all possible means have been employed to reclassify the permit space to a nonpermit space.
- (2) Serve as the safety point of contact with fire department or occupational health personnel for all confined space entry and work.
- (3) Evaluate the effectiveness of procedures implemented to protect the entrant and assist supervisors in proper PPE selection.
- (4) Assist in obtaining and providing confined space entry training for personnel required to enter a confined space.
 - (5) Review all confined space entry programs annually for compliance.
 - e. The fire chief will—
 - (1) Assist in confined-space identification and classification.
 - (2) Provide training for confined-space-entry rescue personnel.
- (3) Provide standby fire protection and emergency rescue during permit space and nonpermit space entries from the fire station.
 - f. The on-duty assistant fire chief will-
- (1) Upon notification of a planned permit space entry, ensure that fire dispatch is aware of the location and time of entry.
- (2) Ensure the work area is documented in the fire and emergency services log and identified on a map.

- (3) Assist, as required, in developing local controls and procedures for entry into permit spaces.
- (4) Serve as the issuing authority for all hot work permits.
- g. The United States Army Medical Department Activity-Alaska, preventive medicine chief will-
 - (1) Assist in confined space identification and classification.
- (2) Recommend proper respiratory protection and assist supervisors with PPE selection and proper use. Provide training and fit testing for required respiratory protection.
 - (3) Assist in hazard identification training.
 - (4) Conduct confined space atmospheric testing when requested by organizational personnel.
 - (5) Assist in developing local controls and procedures for entry into permit spaces.

5-4. Testing

Confined space testing will be done by a qualified person, trained in direct-reading oxygen, flammability, and toxicity monitoring equipment operation. Initial testing will be done from outside the space. Only equipment that is certified as intrinsically safe or explosion-proof will be used until it can be determined that a potentially explosive atmosphere does not exist. Assistance in testing confined space can be obtained from the safety office or preventive medicine section.

5-5. Classification and duties

- a. Confined space. All confined spaces will be evaluated and classified as either permit space or nonpermit space before entry. The classifications will be determined by a physical inspection and atmospheric testing. To be classified as a permit space or a nonpermit space, the confined space must first meet the following definition of a confined space: A confined space is a space that—
- (1) Is large enough and so configured that an employee can bodily enter and perform assigned work and;
- (2) Has limited or restricted means for entry or exit (for example, tanks vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry) and;
 - (3) Is not designed for continuous employee occupancy.
- b. Permit space. Permit space means a confined space that has one or more of the following characteristics:
 - (1) Contains or has a potential to contain a hazardous atmosphere.
 - (2) Contains a material that has the potential for engulfing an entrant.
- (3) Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor that slopes downward and tapers to a smaller cross-section.
 - (4) Contains any other recognized serious safety or health hazard.
- c. Posting permit spaces. Employees will be informed by posting a sign reading "Danger—Permit Required Confined Space—Do Not Enter" or similar words.

- d. Entry into permit space compliance. Entry into any permit space requires compliance with <u>all</u> of the following:
- (1) Entry will only be authorized into a specific permit space, for a specific purpose, by a specific work crew or for a specific time period. Fire and emergency services rescue team entry is exempted from this requirement.
- (2) The permit for entry into a permit space will be issued by the entry supervisor after coordination is made with the fire and emergency services rescue team.
- (3) Efforts should be made to reduce the hazard within the permit space by isolation, ventilation, or other techniques to result in reclassifying the permit space as a nonpermit space. If efforts to reclassify are unsuccessful, entry into the permit space may be authorized by permit only in cases of extreme emergency or absolute necessity, such as rescue efforts or emergency repairs.
- (4) Personnel entering the permit space will be equipped with a harness of a type suitable to permit extraction of the person from the space, a lifeline securely attached to the harness, and such other necessary PPE suitable to the hazards, conditions, and exposure. In some special circumstances, lifelines create a more serious hazard. For instance, a lifeline is not to be worn in the utilidors since the rescuer will probably not have sight of the entrant and pulling on a line could hinder escape or rupture steam lines causing injury.
- (5) If a breathing apparatus is required, a National Institute for Occupational Safety and Health-approved, positive pressure breathing apparatus will be used.
- (6) Communications shall be established and maintained between the person entering the permit space and attendant personnel outside the space.
- (7) Only explosion-proof or intrinsically safe equipment shall be used where flammable or explosive atmospheres are present.
- (8) No entrance will occur into a confined space containing an atmosphere exceeding 10 percent of any chemical's lower flammable limit or atmospheres containing less than 19.5 or more than 23.5 percent oxygen without the coordination and prior approval of fire and emergency services, the safety office, or occupational health section/preventive medicine.
- e. Nonpermit space. Nonpermit space is a confined space that does not contain or, with respect to atmospheric hazards, have the potential to contain any hazard capable of causing death or serious physical harm.
- (1) All confined spaces shall be considered permit spaces and entry into or work in such spaces is prohibited until the space has been atmospherically tested, inspected, and classified a nonpermit space. (The space must be tested for the presence of toxic or explosive flammable gases and oxygen deficiency before each entry.) If the confined space poses no actual or potential atmospheric hazards and if all hazards within the space are eliminated without entry, the space may be reclassified as a nonpermit space as long as the nonatmospheric hazards remain eliminated.
- (2) When initial testing and inspection results in a reclassification to a nonpermit space, no permit is required for entry.
- (3) The use of special protective equipment (i.e., a harness or lifeline) and modified work procedures are not required in nonpermit spaces.
- (4) Whenever welding, cutting, burning, or heating operations of any type are to be performed within a confined space, a hot work permit is required and will be available for inspection at the job site.

(5) When hot work is to be performed in any confined space, continuous atmospheric monitoring and fresh air ventilation are required.

5-6. Training requirements for confined space entry

- a. Entrants. Each employee required to enter a confined space will be trained in emergency procedures and will receive training covering the following subjects before entering a confined space:
 - (1) Hazard recognition.
 - (2) PPE.
- (3) Testing and monitoring, ventilating, communication, and light equipment, barriers and shields, ladders for ingress/egress, and rescue and emergency equipment.
- (4) Employees shall be trained to self-rescue by exiting from a confined space as rapidly as they can without help whenever an order to evacuate is given by the attendant, when an automatic evacuation alarm is activated, or when the employee recognizes the warning signs of exposure to hazardous substances in the confined space. All entrants will be trained to relay an alarm to their attendant and to attempt self-rescue from a confined space.
 - (5) Special work practices or procedures such as asbestos removal.
 - (6) Atmospheric testing and monitoring of confined spaces.
 - (7) Entry permit protocol.
- b. Authorization personnel. Personnel authorizing entry or in charge of confined space entry, in addition to meeting the training requirements of an entrant, shall be trained to recognize the effects of exposure to hazards reasonably expected to be present.
 - c. Attendant. Any employee who will be subject to performing attendant duties will be trained—
 - (1) In entrant duties.
 - (2) In emergency procedures.
 - (3) In proper communications equipment use.
 - (4) In rescue or other emergency equipment summoning procedures.
 - (5) In atmospheric testing and monitoring.
 - (6) In recognition of early behavioral signs of intoxication caused by contaminants.
- (7) According to the same training requirements as those of entrants or rescue personnel, if the attendant is designated to perform those functions.
- d. Shop rescue team personnel. If a shop rescue team exists, each shop rescue team member will be trained in the following subjects and will meet the same training requirements as entrants:
 - (1) Rescue duties and responsibilities.
 - (2) How to use retrieval and rescue equipment.

- (3) Proper PPE wearing and use.
- (4) Basic first aid training and cardiopulmonary resuscitation.
- (5) Simulated victim removal, with at least semiannual practice.
- e. Confined space tester/monitor. Confined space testing and monitoring will be done by a qualified person. The tester will also meet entrant training requirements if entry into the confined space is required to conduct the tests.

Use the following checklist as a guide for evaluating and classifying a confined space. **Do not enter a confined space** until you have considered <u>every</u> question and have determined the space to be safe.

Confined Space Classification and Pre-Entry Checklist		
1. Does the space meet the confined space definition? A confined space is a space that—	Yes	No
(1) Is large enough and so configured that an employee can bodily enter and		
perform assigned work; and (2) Has limited or restricted means for entry or exit (for example, tanks vessels,		
silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means		
of entry); and		
(3) Is not designed for continuous employee occupancy.		
Note: If <u>no</u> , then no further testing or classification is required and work may proceed.		
2. Is entry necessary?	Yes	No
Note: If <u>no</u> , then no further testing or classification is required. 3. Testing?		
(1) Are the instruments used in atmospheric testing properly calibrated?	Yes	No
(2) Was the atmosphere in the confined space tested and results recorded?	Yes	No
(3) Was oxygen at least 19.5 percent and no more than 23.5 percent?	Yes	No
(4) Were flammable gases or vapors, or toxic air contaminants present?	Yes	No
Oxygen >19.5% - <23.5% Time/Results		
Flammable gases LFL<10% Time/Results		
Hydrogen sulfide <10 ppm Time/Results		
Carbon monoxide <35 ppm Time/Results		
Other? List: Time/Results		
4. Inspection and classification. Inspect the confined space for existing hazards. Is any		
one of the following conditions present?		
(1) Contains or has a potential to contain a hazardous atmosphere;	Yes	No
(2) Contains a material that has the potential for engulfing an entrant;	Yes	No
(3) Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor that slopes downward and	Yes	No
tapers to a smaller cross-section; or—		
(4) Contains any other recognized serious safety or health hazard.	Yes	No
Note: If <u>yes</u> on any <u>one</u> , the space is classified as a <u>Permit-Required Confined Space</u>		
(permit space) and an entry permit must be issued before entry.		
Note: If <u>no</u> on <u>all</u> , the space is classified as a <u>Nonpermit Required Space</u> (nonpermit		
space) and no entry permit is required before entry.	V	NI.
Permit-required confined space?	Yes	No
Nonpermit-required confined space?	Yes	No
Signature of Lead Worker Da	to	
Signature of Lead Worker Da	ıe	
Printed Name of Lead Worker		

Figure 5-1. Confined space classification and pre-entry checklist

			NED SPACE E ARAK REG 385-1			
DEPARTMENT:				SHOP:		
SITE LOCATION and DESCRIPTION	N:					4.
PURPOSE OF ENTRY:			1			
AUTHORIZED ENTRY PERSONNI	EL (Last na	ame, initia	d)			
AUTHORIZED ATTENDANTS (La						
ENTRY AUTHORIZED FROM: TII	ME:	DA	TE:	TO: TIM	E:	DATE:
REQUIRED SAFETY PRECAUTION	4S					
CONTROLS	YES	NO	HAZARDS			
Lock out/Tag out		1	117 (27 (100)			
Ventilation (specify)						
Breathing Apparatus (specify)						
Full Body Harness w/"D" ring						
Rescue Equipment (specify)						
Lifelines	7					
Fire Extinguishers		16.				
Lighting (Explosive Proof)	- 1					
Protective Clothing						
Respiratory Protection (specify)						
Hot Work or Welding permit						
Continuous Monitoring Required						
Other controls (specify):						
Communication Procedures: VI	SUAL:	VOI	CE: PHO	NE:	RADIO: L	IFELINE:
Rescue Procedures: DIAL 91	1 - NOT	IFY SUI	PERVISOR - P	ERFORM	NONENTRY	RESCUE
ATMOSPHERIC TEST DATA	PRE-EI	NTRY			FOLLOW UP	
Time Tested					- 557	
Percent Oxygen >19.5%-<23.5%						
Flammable Gases (LFL) < 10%						
Flaminable Gases (LFL) < 10%						
Carbon Monoxide (CO) < 35ppm						
Carbon Monoxide (CO) < 35ppm			Calibratio	n:		
Carbon Monoxide (CO) <35ppm Hydrogen Sulfide (H2S) <10ppm Sampling Equipment:		4	Calibratio	n:	Date:	
Carbon Monoxide (CO) <35ppm Hydrogen Sulfide (H2S) <10ppm	E:		Calibratio	n:	Date:	

USARAK Form 479-R-E 31 January 2004

Previous Edition is obsolete

Figure 5-2. United States Army Alaska Form 479

Chapter 6 Hazard Identification and Abatement

6-1. Purpose

Safety inspections identify hazards, unsafe practices, operations and physical conditions, and are essential to a successful, accident-prevention program. To direct efforts in removing the cause of personnel injuries and property damage, safety inspections will be conducted at all levels.

6-2. Inspections

Minimum requirements for safety inspections are as follows:

- a. All personnel will survey their operations, activities, facilities, and equipment daily for safety hazards, notify their immediate supervisor of any noted hazards, and take appropriate action to remove any hazards.
- b. Supervisory personnel will conduct weekly walk-through safety surveys/inspections of their work areas and be observant at all times to note and correct unsafe actions, conditions, or procedures to provide a safe and healthful work environment for all personnel within their organizations. Supervisors will develop safety checklists for their areas of responsibility. Checklists should be developed and used per DA Pamphlet 385-1, United States Army Safety Center Safety checklists, and OSHA self-inspection checklists.
- c. Commanders/directors will ensure that the appointed unit safety officer/noncommissioned officer (NCO) or civilian collateral duty safety personnel conduct scheduled or unscheduled (without notification) safety inspections quarterly. Safety officers, NCOs, and civilian collateral-duty safety personnel will document the inspections and forward a copy of the report to the appropriate supervisor for corrective action. Follow-up inspections will be conducted to ensure corrective action has been taken. Inspection records will be maintained at the organization for 2 years; a copy will be readily available for review by the appropriate safety office.
- d. Qualified safety and occupational health personnel will inspect all work sites at least once annually, and high-hazard work sites semi-annually (twice per year) per AR 385-10. Inspectors may conduct these inspections with or without prior notification. The activity being inspected will provide a representative to accompany inspectors during the inspection period. A union representative will be given the opportunity to accompany the inspector during the physical inspection of the work place where bargaining unit members are employed.

At the end of the inspection—

- (1) A written report of deficiencies noted during the inspection, with recommended corrective actions will be provided to the appropriate supervisor, commander, or director. The local union office will also be provided a copy of the written report if bargaining unit members are employed in the workplace of the inspection.
- (2) A written response from the organization inspected will be submitted to the appropriate safety office within 30 days specifying the corrective action taken for each deficiency cited. Follow-up procedures, to include an abatement log, should be established to ensure corrective action of each deficiency on a worst-first basis consistent with mission needs. If serious hazards cannot be corrected within 30 days, report the deficiency to the appropriate safety office to be recorded on DA Form 4756 (Installation Hazard Abatement Plan). The local union office will also be provided a copy of the DA Form 4756 if bargaining unit members are employed in the workplace of the inspection.

- (3) DA Forms 4283 (Facilities Engineering Work Requests) (work orders) resulting from safety inspections will be reviewed by the appropriate safety office for endorsement, prioritizing, and assignment of risk assessment codes.
- e. Funds to correct safety and occupational health violations must be identified at the installation level. AR 385-10 outlines procedures for identification, prioritizing, and funding for hazard abatement.

6-3. Reports of unsafe or unhealthful working conditions

- a. Employees will report alleged unsafe or unhealthful working conditions to their immediate supervisor, or may submit DA Form 4755 (Employee Report of Alleged Unsafe or Unhealthful Working Conditions) directly to the appropriate safety office. These reports may be submitted anonymously. While nothing in this section will preclude an employee from submitting the complaint directly to OSHA, employees are encouraged to report alleged unsafe or unhealthful working conditions to their immediate supervisor, to their chain of command and/or the appropriate safety office. The immediate supervisor will contact the appropriate safety office to investigate the report promptly and provide technical assistance and advice to the supervisor.
- b. If the supervisor or the safety office representative assesses the hazard severity as (imminent danger) likely to immediately cause death, severe injury, severe occupational illness, or major property damage, they will eliminate the hazard, stop the operation, and notify the appropriate safety office. If the safety office representative deems the corrective action to be inadequate, he/she will secure approval of the commander and take appropriate action to prevent worker exposure to the hazard.
- c. Corrective action for reports of unsafe or unhealthy conditions should be conducted at the operational level, whenever possible.
 - (1) Report hazards directly to the supervisor or unit safety officer/representative.
 - (2) Report hazards through operational channels.
 - (3) Use the Army Hazard Reporting System.
- d. If corrective action taken by the immediate supervisor or chain of command does not eliminate the identified unsafe or unhealthful working conditions, personnel may submit a written report directly to the appropriate safety office.
- (1) Whenever possible, submit reports of hazards on DA Form 4755. Supervisors will ensure availability of blank DA Forms 4755 in the workplace.
- (2) All reports should include the name of the employee making the report or the employee's representative. The safety office will ensure anonymity if requested. Within 10 workdays of receipt, a qualified safety representative will conduct an on-site inspection/investigation of the alleged hazard and submit a written response to the originator of the report.
- (3) Personnel reporting safety violations per AR 385-10 and 29 CFR 1910 will not be subjected to coercion, discrimination, or reprisals.
- e. Supervisors will post a properly completed DD Form 2272 (DOD Occupational Safety and Health Protection Program (Poster)) on a unit/activity bulletin board or in a location assessable to employees.

Chapter 7 Safety Training and Bulletin Boards

7-1. Safety training requirements

- a. Commanders/managers/supervisors will ensure that all newly assigned personnel receive a safety orientation briefing within 30 days of arrival to inform them of their rights and responsibilities as specified by Army safety regulations. This briefing will be documented and include, but not be limited to the following topics:
 - (1) Commander's safety policy.
 - (2) Unit accident reporting procedures (on and off duty).
 - (3) Unit hazard reporting procedures (DA Forms 4755 location).
 - (4) Safety rights and responsibilities (DD Form 2272).
 - (5) Local traffic, winter driving, and water safety.
- (6) Privately owned vehicle (POV) safety (seatbelts, driving under the influence, speeding, inspection, maintenance).
 - (7) General safety (physical training, PPE, fire safety).
 - (8) Safety awards (unit and individual).
 - (9) On-the-job safety training.
 - (10) Importance of risk management.
 - (11) Alaska orientation, such as cold weather survival, wildlife, and environmental concerns.
- b. Supervisory personnel will perform unique, on-the-job safety training of employees. This training will be documented on an employee safety and health record such as the one shown in appendix E and maintained in the individual's training file. Examples of documented, safety training include:
 - (1) Hazardous machinery and equipment.
 - (2) Dangerous chemicals.
 - (3) Hazardous operations.
 - (4) Safety requirements.
 - (5) Necessary PPE and protective measures.
- c. Newly appointed safety representatives, military or civilian are required to take the unit safety officer course or civilian collateral safety personnel course provided by the safety office. Supervisors are highly encouraged to participate in this training. This training provides instruction in managing a comprehensive safety program for the unit commander/organization director. Upon satisfactory completion of the course, graduates will perform duties as the unit/organization safety representative and will be qualified to conduct standard Army safety and occupational health inspections.

- d. Professional development safety training for safety and occupational health specialists and managers will be contracted and/or coordinated by the appropriate safety office.
- e. Commanders and supervisors will conduct safety briefings on accident prevention at least monthly and before holiday periods or long weekends. Recommended subjects include but are not limited to:
 - (1) Holiday driving and POV safety.
 - (2) Water-related safety.
 - (3) The effects of alcohol or other drugs.
 - (4) Recreational safety subjects.
 - (5) Area and environment specific hazards.

7-2. Bulletin board/safety literature

- a. Commanders, directors, managers, and supervisors will ensure that all units, activities, or sections devote a portion of their bulletin board to prominently display safety and occupational health materials.
- b. Each organization will maintain files of available safety literature. These files will include items such as safety SOPs, safety bulletins, newsletters, memorandums, pamphlets, and other safety correspondence that applies to the organization.
- c. Post DD Form 2272 (DOD Occupational Safety and Health Protection Program (Poster)), the commander's safety policy letter, and the collateral duty safety officer/representative appointment document, at each workplace in the location where personnel notices are usually placed. The poster explains employee rights and responsibilities under Public Law 91-596.

Chapter 8 Radiation Safety Program

8-1. Purpose

The purpose of this chapter is to provide ionizing and nonionizing radiation safety guidance and implement the radiation safety program. This chapter prescribes procedures for the safe use, maintenance, handling, storage, transportation, and disposal of radioactive material.

8-2. General

- a. Federal regulations (e.g., Nuclear Regulatory Commission (NRC), Department of Transportation, Department of Energy, Department of Labor, Environmental Protection Agency, Federal Aviation Administration) and DA regulations governing the safe use, handling, storage, transportation and disposal of radioactive materials are mandatory. No deviations from these regulatory requirements are authorized without written approval of the appropriate Headquarters (PARO or USARPAC) and the installation/mission commander.
- b. The Army inventory includes a large number of ionizing and nonionizing radiation sources. All radiation sources must be stored, operated, transported, and disposed of by an accountable individual according with applicable military and civilian regulatory standards. Most ionizing sources contain small amounts of radioactive material, have limited potential for causing injury, and are listed in TB 43-0116. Most nonionizing sources contain no radioactive material, must be energized to cause injury, are listed in TB 43-0133, and should be operated in strict accordance with appropriate technical manuals to reduce injury potential.

8-3. Policy

This command is committed to providing a safe and healthful workplace for its personnel by keeping personnel exposure to ionizing radiation as low as reasonably achievable.

8-4. Responsibilities

- a. The appropriate commander at each installation will appoint an installation and mission radiation safety officer (RSO) in writing. Under the direction of the respective installation or mission SOH manager, the RSO will develop, direct, coordinate, and implement the radiation safety program. An alternate RSO may be appointed to perform the duties of the RSO in his/her absence.
- b. The director of logistics will, in coordination with the installation RSO, be responsible for the receipt, handling, storage, tracking, transportation, and proper disposal of radioactive materials, and will develop an SOP to ensure proper turn-in and handling of radioactive materials.
 - c. Commanders or directors who use, maintain, store, transport, or dispose of radiation sources will—
- (1) Designate in writing a qualified unit or organization-level radiation safety officer to manage the radiation safety program in compliance with applicable regulations and laws. At brigade, battalion, or company level theses duties may be performed by the appointed (qualified) Nuclear, Biological, and Chemical (NBC) NCO or officer.
- (2) Provide the appropriate installation/mission RSO with copies of SOPs and appointment orders with individual qualifications (training certificate).
- (3) Establish an organization-specific, radiation safety SOP. A brigade or battalion level SOP may be implemented down to company or detachment level.

- (4) Identify all ionizing and nonionizing radiation sources and ensure they are handled, stored, transported, and maintained per appropriate technical manuals and NRC-license conditions.
- (5) Notify the appropriate installation/mission RSO of any incident or accident involving radioactive materials.
- (6) Notify the appropriate installation/mission RSO before turn in or transfer of individually controlled radioactive commodities.
 - (7) Coordinate movement of radioactive commodities with the appropriate installation/mission RSO.
- (8) Conduct an annual inventory of all radioactive equipment no later than 1 October of each year and submit a copy to the appropriate installation/mission RSO. The RSO will notify the local fire and emergency services of the type, quantity, and location of radioactive materials. Inventory records will be maintained for 2 years.
 - (9) Ensure compliance with federal, state, local, and Army regulations.
- (10) Review the unit radiation safety program with the appropriate mission/installation RSO annually. A record of the review will be maintained for 2 years.
 - d. The installation commander's responsibilities are as outlined in AR 11-9, paragraph 1.4j.
 - e. The installation/mission RSO's responsibilities are as outlined in AR 11-9, paragraph 1.4n and o.

8-5. Accident/incident reporting and investigation

- a. Report and investigate all accidents/incidents involving Army personnel and equipment or suspected over-exposures to radiation sources per DA Pamphlet 40-18, AR 11-9, AR 40-5, and AR 385-40.
- b. Report all accidents, incidents, or suspected personnel exposures involving radiation sources through the chain of command to the appropriate mission/installation RSO at the safety office. During nonduty hours, report this information to the command center at 384-6666. The command center will notify the on-call safety representative who will in turn notify the installation/mission RSO.

8-6. Procedures for radiological emergencies

It is not possible to establish procedures to cover all situations or radiological emergencies. The primary purpose of emergency actions is preservation of life, limb, and personnel protection from radiation hazards. The following emergency procedures are listed in the order of importance and will be administered under the guidance of the installation/mission RSO:

- a. Notify the appropriate installation/mission RSO immediately of any incident or accident involving radioactive material or radiation sources.
- b. Protect personnel from radiation hazards by isolation or containment. Place all suspected broken or damaged radioactive items in a double plastic bag and seal the bag. Mark the bag with the type of equipment, model, quantity, radioactive isotope, date, point of contact, and the words, "Caution Radioactive Material Do Not Open."
 - c. Confinement of any contamination, including recovery of lost or damages equipment/sources.
 - d. Decontamination and cleanup by properly trained response team.

- e. Disposal of contaminated equipment and clean-up materials per Army, state, and federal regulations.
- f. The installation/mission RSO will provide technical assistance, Radiation Detection, Indicating, and Counting (RADIAC) equipment to the Fire Department for Radiological Emergencies.

8-7. Training

- a. The installation/mission RSO will receive training commensurate with the potential radiation hazards from radiation sources for which they are responsible.
- b. Users of equipment containing radioactive materials will receive initial and annual (refresher) radiation safety training as required by specific technical manuals, commodity license, regulations, laws, or as recommended by the installation/mission RSO. Training will be documented and available for inspection.
- c. Operators and personnel performing maintenance on equipment producing nonionizing Radio Frequency Radiation (RFR) will receive annual training on the hazards associated with RFR.

8-8. Transportation of radioactive materials

- a. Transportation of radioactive materials will be conducted using AR 11-9, paragraph 2-6, NRC (10 CFR 71), Department of Transportation (49 CFR), Department of Defense Instruction (DODI) 4500.9 (part II), and TM 55-315 for guidance.
- b. Contact the installation/mission RSO for guidance or any questions regarding transportation of radioactive material.

8-9. Receipt and turn in of radioactive sources

- a. Complete the proper documentation before receipt or turn in of radioactive sources. The directorate of logistics and the receiving or turning-in unit/directorate will maintain documentation of all radioactive sources.
- b. Turn in all unwanted radioactive sources to directorate of logistics, supply/services division for proper disposal and disposition.
- c. Turn in items to the directorate of logistics per the directorate of logistics SOP. Turn in of all radioactive material will be coordinated with the installation/mission RSO.
- d. The installation/mission RSO is the first point of contact for all radiation sources. Technical advice and assistance is also available from the installation/mission RSO by telephone, e-mail, or written correspondence.

8-10. Contractor use of nuclear sources and instruments

- a. Contractor work activities requiring the use of equipment containing radioactive sources will apply by letter for an Army radiation permit to the appropriate FRA or FWA garrison commander 30 days before to the start of work. No work will commence that involves any equipment with a radioactive source without a valid Army radiation permit. The installation RSO will process all requests for Army radiation permits and obtain the appropriate FRA or FWA garrison commander's approval/ signature.
 - b. The normal processing time for an Army radiation permit is 5 working days.

c. All Army radiation permits will be processed per AR 11-9, paragraph 2-4.

8-11. Inspections and surveys

- a. The installation/mission RSO will inspect units and directorates that use, maintain, transport, or store radioactive material annually.
- b. All direct and general support shops performing maintenance on licensed radioactive commodities will be surveyed (wipe tested) on a quarterly basis by the installation/mission RSO.
- c. The installation/mission RSO will survey (wipe test) all radioactive material storage areas per the appropriate NRC license agreement or Army directive. The installation/mission RSO will maintain results on file for 2 years.
- d. Unit Army radiation permit personnel will maintain documentation of the wipe/leak test for all licensed radioactive commodities.
- e. Units/directorates that use, maintain, transport, or store radioactive material will conduct self-inspections utilizing the checklist in appendix F.

8-12. Radio frequency radiation sources

- a. Units operating or maintaining radio frequency radiation sources will operate the equipment per applicable technical manuals and SOPs approved by the installation/mission RSO.
- b. SOPs will reflect safety precautions to prevent exposures to radio frequency radiation, reporting requirements for possible over exposure, required warning signs, safety briefings, restrictions, and procedures for documenting integrity surveys of radio frequency radiation safety features.
- c. The owning unit will perform and maintain an inventory of the radio frequency radiation producing sources and provide a copy to the appropriate installation/mission RSO. SOPs will reflect the safety precautions to prevent accidental exposures to assigned workers and other unit personnel.

8-13. Radiation safety committees

- a. The installation radiation safety committee will meet no less than once a year or at the call of the chair. The installation SOH manager will chair the installation radiation safety committee. In the absence of the chair, the installation RSO will chair the committee. The installation RSO or alternate will serve as recorder and provide minutes of the committee meeting to each attending member. Minutes of the meeting will be maintained on file for 2 years.
- b. Membership will include the installation and mission RSO and a representative from each of the following: brigade, separate battalion, company, directorate or tenant units that use, handle, maintain, store, or transport ionizing or non-ionizing radiation sources.
- c. The installation radiation safety committee may be held by video teleconference when possible and coordinated with each organization.

8-14. Radiation safety standards, dosimetry, and recordkeeping

a. Commanders will ensure that all personnel exposed to radiation are properly monitored and provided with dosimeters applicable for exposure.

- b. Unit supervisors will ensure that all personnel with the potential for exposure are provided with the proper dosimeter and receive a safety briefing before the start of work where exposure can be produced by the equipment in use.
- c. The person appointed responsible will review monthly or quarterly dosimeter reports and inform workers of the exposure recorded on the report. All personnel on the dosimeter program will be provided a copy of their dosimeter record at least annually. The date the worker was provided the copy will be recorded in their exposure record.
- d. AR 11-9, table 5-1 sets the occupational exposure of ionizing to military and civilian personnel to include declared pregnant women on an annual basis. Local medical facilities may impose additional restrictions for pregnant women exposed to ionizing radiation. Personnel under the age of 18 years are limited to the same exposure as that of a pregnant woman.

8-15. Storage

All equipment containing radioactive material will be properly secured and stored separately from other equipment. Radioactive material storage areas will be properly posted with:

- a. NRC Form 3 (Notice to Employees).
- b. "Caution Radioactive Materials" or other appropriate sign.
- c. USARAK Poster 385-21 (No Eating, Drinking, Smoking, Chewing, or Applying Cosmetics in This Area).
 - d. USARAK Poster 385-22 (Radioactive Material Emergency Contacts).
 - e. Copy of Public Law 93-438 (Energy Reorganization Act of 1974).
 - f. When applicable, a statement denoting location of NRC license and 10 CFR 19, 20, and 21.

8-16. Continuity book

A continuity book will be maintained at each organization. The book will contain the information specific to that organization. The continuity book will contain the following information:

- a. Inventory of all radioactive equipment.
- b. Unit/organization radiation safety SOP.
- c. Written appointment as RSO or NBC NCO/officer.
- d. Training records of all personnel required radiation safety training.
- e. Documentation of annual wipe test (leak test) of radioactive equipment.

Chapter 9 Range Safety

9-1. Purpose

This chapter provides safety guidance for range operations within the command. This regulation provides guidance that will be used for the planning and use of ranges or training areas.

9-2. General

The command will provide a safe and healthful training environment by eliminating or keeping hazards to an absolute minimum on its ranges and training areas. Range and training area operations are governed by AR 385-62, AR 385-63, and USARAK Regulations 350-1 and 350-2, which outline mandatory requirements from which there are no deviations without prior approval from higher headquarters and/or the USARAK commander.

9-3. Responsibilities

- a. The USARAK commander has been delegated waiver authority to-
- (1) Reduce the dimensions of surface danger areas when the terrain, artificial barriers, or other controlling factors make smaller areas safe.
- (2) Modify prescribed firing procedures appropriate to the training of participating troops to increase realism in training.
 - b. The installation SOH manager will-
 - (1) Coordinate and provide safety oversight for the range safety program.
 - (2) Evaluate the installation range safety program for regulatory compliance.
 - (3) Review and provide comments/recommendations on installations' range regulations and SOPs.
- (4) Review and provide comments/recommendations on plans for construction, modification, or changes in the use of ranges and training facilities.
- (5) Review and provide comments/recommendations on request for waivers/deviations of regulatory safety criteria.
 - (6) Review all waivers/deviations of regulatory safety criteria annually.
 - c. The G3 will-
- (1) Develop, implement, and ensure enforcement of an installation range regulation governing all ranges and training areas.
- (2) Review range regulations annually and before changes are sent for publication, forward a copy of the regulation and all changes to the safety office for review and comment.
- (3) Forward plans for construction, modification, or change in the use of ranges and training facilities to the installation safety office for review and comment.

- (4) Prepare requests for waivers/deviations per AR 385-63 and USARAK Regulation 350-2 and forward to the installation safety office for review and comment.
- (5) Ensure that units meet conditions of waivers/deviations and immediately stop all operations when an unsafe condition is observed or an accident/incident occurs while operating under the waived conditions. Cancellation of a waiver requires a joint review of the waiver by the G3 and installation safety office before proceeding with training under the waived conditions.
- (6) Ensure the reporting of all accidents/incidents and personnel injuries occurring on ranges and training areas per AR 385-40, DA Pamphlet 385-40, and this regulation.
 - d. Commanders who utilize ranges and training areas will-
- (1) Develop, enforce, and submit to G3 SOPs that provide for the safety of their personnel when conducting operations on ranges and training areas.
- (2) Utilize the risk management process for all training events. A risk assessment will be completed and maintained on file for the duration of the training event and retained for one year or until the next similar exercise/operation, which ever occurs first.
- (3) Enforce compliance of all ARs, policies, SOPs, applicable FMs, and technical manuals and train to these standards. Commanders will not deviate from published standards.
- (4) Develop and implement formal written officer-in-charge and range safety officer/NCO certification programs.
- (5) Report all accidents/incidents and personnel injuries occurring on ranges and training areas to the installation and mission safety office during normal duty hours or to the command operations center during off-duty hours.
- e. Officers in charge of ranges and training areas are responsible for ensuring compliance of with AR 385-63, USARAK Regulations 350-1 and 350-2, this regulation, and unit SOPs.

9-4. Ammunitions and explosives

- a. Transportation and field storage of ammunitions and explosives will be per AR 385-63, AR 385-64, DA Pamphlet 385-64, Title 49 CFR, and chapter 14 of this regulation.
- b. The commander or his/her representative will inspect the storage of ammunition and explosives in field ammunition transfer points, using the guide at appendix G.
- c. The commander or his/her representative will ensure ammunition accountability complies with AR 710-2 and DA Pamphlet 710-2-1.

Chapter 10 Tactical Safety

10-1. Purpose

This chapter provides safety guidance for all tactical operations.

10-2. General

In the tactical environment, mission accomplishment requires continuous leader involvement, flexible decision-making, and compliance with established standards. Accidents and injuries tend to increase during maneuver and field training exercises. Leaders must provide the safest possible training environment by eliminating or keeping hazards to an absolute minimum during tactical training. During tactical operations, leaders will follow the safety procedures as described in this regulation to help reduce losses of manpower and equipment.

10-3. Risk management

Safety in tactical environments depends heavily upon compliance with established risk management standards. Accidents are an unacceptable impediment to Army missions, readiness, moral, and resources. Leaders at all levels will utilize risk management procedures to integrate safety into the planning and execution phases of all tactical operations. A written risk assessment will be completed for all tactical training exercises. Refer to chapter 2 and Field Manual (FM) 100-14 for further guidance.

10-4. High-risk areas

Army Regulation (AR) 385-10 stipulates tactical safety as a major safety program. Safety guidance for high-risk tactical areas can be found in DA Pamphlet 385-1. Decisions for high-risk areas must be made at the proper level.

- a. Extremely high-risk areas—Commander USARAK.
- b. High-risk areas—Brigade commander/DCO.
- c. Medium-risk areas—Battalion commander.
- d. Low-risk areas—Company commander.

10-5. Vehicle convoy operations

All convoy operations will comply with safety provisions outlined in AR 385-55, USARAK Regulation 55-2, FM 55-30, and other applicable regulations that provide regulatory requirements and guidance for convoy operations.

10-6. Refueling Operations

Field Manual 10-67-1 provides guidance for all aspects of refueling operations. FM 10-67-1 describes use of proper PPE to prevent exposure and provides specific safety, health, and fire-fighting guidance. All personnel will comply with all safety procedures and requirements of FM 10-67-1.

10-7. Bivouac safety

a. Commanders will establish dismount points beyond which all military vehicles may not move without ground guides.

- b. Commanders will establish designated sleeping area(s) and mark the area(s) as the tactical situation permits. Leaders will ensure that parking brakes are locked when practical, (i.e., when temperatures are below zero, brakes can freeze) and that vehicles are not parked where they can roll toward sleeping personnel. Leaders will also ensure that chock blocks are used whenever a vehicle is parked on a slope of any kind.
 - c. Perimeter security guards will be posted to prevent vehicle passage without proper ground guide.
- d. Individuals must be properly trained and licensed on all heating equipment. Only command-approved stoves or heating equipment will be used. Nonvented stoves (not exhausted to the outside) will not be used in sleeping areas or administrative work areas occupied by personnel. Maintain and operate equipment according to the technical manual, operating instructions, manufacturers manual, and written SOPs. Ensure that the operating instructions or manufacturer's manual is on site with all heating equipment and strictly adhered to. Store combustible/flammable material away from heaters and stoves, and ensure that fire-fighting equipment is available.

10-8. Cold weather safety

Individuals as well as leaders have the responsibility to implement preventive measures to reduce and/or eliminate cold weather injuries. USARAK regulation 40-5, cold injury prevention, prescribes policies and procedures to prevent cold weather injuries. Soldiers and leaders at every level will ensure that safety measures are taken during extreme arctic conditions to prevent the loss of Army personnel and equipment.

Chapter 11 Personal Protective Equipment Program

11-1. Purpose

This chapter's purpose is to implement the Personal Protective Equipment (PPE) program as required by AR 385-10, DODI 6055-1, and 29 CFR 1910.132-138.

11-2. General

- a. Hazard awareness training, PPE use, maintenance, and supervisor responsibility/accountability are major elements of an effective PPE program. Initial evaluations identify workplace hazards and the equipment needed to protect employees against those hazards. Concerned management must use these evaluations to formulate SOPs for employees and then train them to understand the purpose and limitations of PPE. Finally, supervisors must be held accountable for training employees in the use and maintenance of PPE to protect themselves against workplace hazards.
- b. Supervisors will employ engineering and administrative controls to eliminate health hazards in the workplace when possible. Where this is not possible, prescribed PPE will be provided for protection against hazards at no cost to the employee. PPE will be provided when the following conditions exist:
- (1) Engineering and/or administrative controls are not feasible or will not sufficiently eliminate the hazard.
 - (2) Development or installation of engineering controls is pending.
- (3) Short-term, nonroutine operations for which engineering and/or management controls are not feasible.
- (4) Emergency situations; e.g., spill response (including cleanup operations), ventilation malfunctions, emergency egress, and damage-control activities. PPE use is mandatory when prescribed by supervisory personnel, qualified safety and occupational health personnel, and when operating conditions present work hazards or health risks.

11-3. Responsibilities

- a. The installation and mission SOH managers are designated the PPE program managers. The program managers will—
- (1) Oversee and coordinate all aspects of the PPE program with preventive medicine and advise the appropriate installation or USARAK commander on the success of the program.
- (2) Provide workplace PPE program compliance guidance. To assist personnel, a PPE program checklist is at appendix H.
- (3) Ensure results of safety inspections are provided to commanders, directors, managers, and supervisors to assist in ensuring compliance with regulatory requirements.
 - b. Preventive medicine will—
- (1) Conduct evaluations of workplaces to identify PPE requirements and prescribe the specifications of the PPE for purchasing.

- (2) Determine if workers assigned to tasks requiring the use of PPE are physically and psychologically able to perform work while wearing prescribed PPE.
 - (3) Review the medical status of the PPE user during annual physical examinations.
 - c. Director of logistics will-
- (1) Coordinate with the SOH manager to ensure that prescribed safety specifications for PPE being purchased are verified.
- (2) Maintain common PPE items such as coveralls, safety belts, and other items that are listed in DA Pamphlet 385-3.
- d. The directorate of contracting will purchase only PPE that meet OSHA regulatory standards, American National Standards Institute (ANSI), and/or National Institute for Occupational Safety and Health safety standards.
- e. The civilian personnel advisory center will provide administrative and training support identified by the program manager as required by law or as required for the success of the PPE program.
 - f. Commanders, directors, and supervisors will—
- (1) Implement policies and procedures to ensure personnel are aware of workplace hazards and provide the PPE required for their specific operations.
- (2) Implement policies that support efforts to ensure compliance with the prescribed procedures for the use and maintenance of PPE. Counseling and disciplinary action should be considered for—
- (a) Employees who repeatedly do not wear required PPE or who operate equipment without proper safeguards in place.
 - (b) Supervisors who do not enforce the use of required PPE and equipment safeguards.
- (3) Identify positions in operations that require the use of PPE and ensure job descriptions identify PPE requirements.
- (4) Budget for, purchase, and provide personnel with appropriate/approved PPE for tasks/operations. Coordination with the installation/mission safety office and/or preventive medicine is required before any purchases.
- (5) Formulate SOPs on PPE use and maintenance and ensure personnel understand and comply with prescribed procedures.
 - (6) Provide training on PPE use and maintenance and maintain records on training and issue.
- (7) Inspect equipment to ensure safeguards (e.g., blade guards, noise-control devices, ventilation systems, etc.) are operating and properly maintained.
 - g. First-line supervisors will-
- (1) Conduct a workplace walk-through survey to identify sources of hazards to workers and coworkers using sample in 29 CFR 1910, subpart I, appendix B.

- (2) Generate a written certification that the workplace hazard assessment was performed per 29 CFR 1910.132(d)(2).
- (3) Contact the appropriate installation/mission safety office for assistance in identifying hazards or certifying the workplace hazard assessment.
 - h. Both military and civilian employees will-
- (1) Comply with the provisions of AR 385-10, this regulation, instructions provided by their supervisors, the safety office, and preventive medicine regarding the use and care of PPE.
- (2) Wear and provide normal maintenance for PPE provided by their supervisors to prevent injuries and illnesses.
 - (3) Not modify or alter issued PPE.
 - (4) Report hazards and defective equipment to their supervisors.

11-4. Army-funded personal protective equipment

- a. Supervisors will requisition, store, and issue PPE deemed necessary to prevent work-related injuries and illnesses at no cost to employees. Items made available include but are not limited to:
 - (1) Eye protectors.
 - (2) Protective headgear.
 - (3) Hearing protector.
 - (4) Foot protection
 - (5) Gloves (including chemical resistant gloves).
 - (6) Respiratory protection equipment.
- b. Army funds to purchase standard and nonstandard items (e.g., safety harnesses, life belts, lineman's gloves, etc.) for issue to personnel as authorized by Common Table of Allowances (CTA) 8-100, 50-900, 50-909, and 50-970, DA Pamphlet 385-3, AR 385-10, Section 7903 of Title 5, United States Code, Section 19 of the 1970 OSHA Act, and Public Law 91-596.
- c. Items not considered PPE, but equipment for protection against inclement elements or operations peculiar to the occupation, will be furnished if the commander/director or the safety office determines that the items are necessary to prevent accidents, injuries, illnesses, or diseases, and that the government will benefit from the action.

11-5. Employee-owned personal protective equipment

This command prohibits use of employee-owned PPE in the workplace until the safety office or preventive medicine determines the appropriateness of the PPE. Upon approval for use in the workplace, the commander/director assumes responsibility for the care and maintenance of employee-owned PPE.

11-6. Designated operations/job titles requiring personal protective equipment

- a. Each workplace supervisor, with the assistance of the safety office and/or preventive medicine will—
- (1) Identify the hazards associated with each operation/job title in the workplace that requires PPE use (see app I).
- (2) Designate, with signs and labels (e.g., hard hat area, noise hazard, etc.), equipment and areas identified as posing health and safety hazards to personnel.
- (3) Issue appropriate PPE to personnel who work in designated hazardous areas or with designated hazardous equipment. Provide visitors to designated hazardous areas with PPE appropriate for the area.
- b. Specific operations requiring PPE use are listed in appendix I. The following describes seven general PPE categories and use requirements:
- (1) Respiratory protection. Personnel will receive and must wear the proper type of respiratory protection before entering or working in irritating, nuisance, oxygen-deficient, or toxic atmospheres. Refer to chapter 4 and ANSI Z88.2-1980 for specific requirements.
- (2) Eye and face protection. Personnel must wear goggles, safety glasses, and/or face shields in the proper manner when engaged in grinding, chipping, nailing, welding, handling of molten metals, washing with acids, caustics, or chemicals, using impact tools, working under vehicles, or doing work where there is a danger of flying particles/objects or splashed/sprayed material. No person will enter an eye-hazard area during operations without approved eye protection. Use eye and face protection per ANSI Z87.1-1979. Supervisors will be responsible for strict adherence to this provision.
- (3) Hearing protection. Personnel working in designated noise-hazard areas, with noise-hazard equipment, will receive hearing-protection devices. No person will enter a noise-hazard area without approved hearing protection. All supervisors will be responsible for strict adherence to this provision. For more information on a hearing conservation program, contact the occupational health services office.
- (4) Foot protection. Personnel engaged in construction, maintenance, material handling, warehousing, packing, and fuel operations and exposed to foot-hazard occupations must wear foot protection that meets ANSI Z41.1-1967 (or more recent editions) at all times. Foot protection will be issued to personnel at government expense.
- (5) Head protection. All personnel on construction or renovation sites or other jobs that may expose them to the danger of head injury by being struck with falling, suspended, or moving objects will wear head protection. Head protectors will meet OSHA and/or ANSI standards.
- (6) Torso protection. A variety of PPE in the form of vests, jackets, aprons, and coveralls are available for protection of the torso against the hazards of exposure to liquids, impacts, cuts, acids, radiation, and heat. The employee's supervisor will determine final selection requirements and inspect the PPE for proper fit and function before use.
- (7) Arm and hand protection. A variety of gloves, pads, sleeves, and wristlets provide protection against chemical, mechanical, electrical, and terminal hazards. The employee's supervisor will determine final selection for specific occupations per appropriate standards. Electrical gloves must be tested and certified every 6 months.

11-7. Personal protective equipment issue, control, use, and maintenance

- a. Supervisors will maintain control over the issue, use, and maintenance of all workplace PPE. They are also responsible for the sanitation of all common-use PPE. PPE will be stored in such a way that it is not contaminated or compromised by the work environment.
- b. Supervisors should issue PPE to employees for their own use, whenever possible. Employees will be responsible for the sanitizing and maintenance of all government-issued PPE.
- c. Employees who deliberately damage, alter, or fail to use required government-furnished PPE to prevent exposure to hazards related to operations in the workplace may receive disciplinary action per AR 690-700.

11-8. Training

- a. The safety office and preventive medicine will assist with identifying and coordinating training courses that meet regulatory requirements.
- b. Commanders, directors, and supervisors will ensure that all employees are trained on PPE use and maintenance. Supervisors are also responsible for maintaining written records, including testing results of all training received by employees. Training will be documented on the employee safety and health record. (See app E).

Chapter 12 Aviation Accident Prevention Program

12-1. Purpose

The USARAK aviation accident prevention program assigns responsibilities and establishes policies and procedures for the prevention, reporting, and investigation of aviation accidents.

12-2. General

- a. Aviation accident prevention is a command responsibility. Aviation operations are inherently risky and require an in-depth application of the risk management process to ensure the protection of Army personnel and equipment.
- b. Integration of the risk management philosophy into all aviation operations involving aircraft use and maintenance is key to reducing and/or eliminating potential hazards that contribute to aviation accidents.

12-3. Responsibilities

- a. The USARAK commander will-
- (1) Appoint, in writing, a qualified USARAK aviation safety officer (ASO) who's responsibilities are to advise, assist, and represent the commander and staff on all aviation safety matters outlined in AR 95-1, AR 385-95, USARAK Regulation 95-1, and other applicable directives.
- (2) Ensure coordination with tenant aviation units concerning aviation safety responsibilities, functions, and funding.
 - b. Installation SOH managers will oversee the aviation safety program for the installation Army airfield.
 - c. Commanders will ensure that-
- (1) Units are in compliance with the safety and risk management procedures required by chapter 2 of this regulation, AR 95-1, AR 385-95, USARAK Regulation 95-1, FM 100-14 and other applicable directives.
 - (2) SOPs are prepared for all aviation operations conducted by the unit.
- (3) Sound flight principles and safe practices are followed in all flight operations regardless of mission urgency.
- (4) A plan is developed to ensure that mission and aircraft assignments are within air crews' current capabilities.
- (5) Crew rest policies established by the USARAK commander are enforced at all times except in emergencies to prevent loss of life.
 - (6) Safety meetings are conducted and documented monthly.
- (7) A unit foreign object damage (FOD) program is written and all personnel are familiar with its contents.
- (8) Aviation accident prevention surveys are conducted of all functional areas a minimum of semiannually.

- (9) Detailed, written pre-accident plans are developed that specify duties, responsibilities and immediate actions for personnel involved in accident notification procedures.
 - (10) The unit has integrated aviation safety awards into the unit awards program.

12-4. Command aviation safety council

- a. Due to the limited number of personnel within the G-3 Aviation Division, the command aviation safety council will be conducted in conjunction with the quarterly post safety council meetings.
- b. The council will discuss unabated safety hazards or conditions and identify resources and responsibilities to correct these deficiencies. Serious hazards will be brought to the USARAK ASO's attention immediately. The council will be used as a forum for leaders to address risk management issues related to aviation operations.
- c. The council membership includes key personnel at the discretion of and/or designated by the deputy commanding officer or aviation division chief.

12-5. Operational hazard reports

Operational hazard reports, DA Form 2496, will be completed per AR 385-95 and USARAK Regulation 95-1. If other aviation units can benefit from the information concerning a hazard, the recommendations, or the corrective actions, forward a copy of the operation hazard report to the USARAK ASO. The USARAK ASO will disseminate the information as appropriate.

12-6. Aviation accident notification and reporting

- a. If an aircraft accident has occurred, it is essential to accomplish notification and reporting as soon as possible. Publish notification procedures in the unit safety SOP and in all duty officer instruction books. Units will utilize the chain of command to notify the command operations center. (See appendix J).
- b. The command operations center will immediately notify the USARAK safety director and the USARPAC command center of any class A, B, or C aviation accidents. The safety director verifies that the USARAK ASO has been notified. USARAK ASO will notify the USARPAC ASO and ensure that the United States Army Safety Center is telephonically notified.
- c. All aviation accident reports will be completed per AR 385-40, DA Pamphlet 385-40, guidance from the USARAK ASO, and the USARAK safety office.

12-7. Aircraft accident investigation boards

- a. Upon notification of a class A, B, or C aviation accident, the commander, United States Army Safety Center will determine whether a centralized accident investigation or an installation-level accident investigation will be conducted. If a centralized accident investigation will be conducted, the USARAK ASO will coordinate with the United States Army Safety Center and serve as the central point of contact/local advisor to the board.
- b. If an installation-level accident investigation is to be conducted, the USARAK commander will appoint board members from outside the organization that incurred the accident. The USARAK ASO will assist the commander in selecting board members. USARAK deputy chief of staff for personnel prepares appointment orders for the USARAK commander's signature and notifies members. The USARAK deputy chief of staff for personnel will coordinate with the USARAK deputy chief of staff for resource management for fund cite and board member temporary duty requirements. During out-of-state deployments, the USARAK commander will determine whether to form the accident board on site, in Alaska, or whether to form the board utilizing non-USARAK units (i.e., continental United States units).

c. Board members meet at the time and place designated by board president. The USARAK ASO provides advice and assistance to board. The USARAK ASO will provide investigation progress reports to the USARAK commander through the USARAK director of safety. The USARAK ASO will process completed aircraft accident investigation reports and prepare the USARAK commanders' comment sheet. The final investigation report will be submitted through the USARAK safety office for final review and disposition. The USARAK commander is the final approving authority for class C aviation accidents. The USARPAC commander is final approval authority for all class A and B reports.

12-8. Airfield, helipad, and landing zone inspections/surveys

- a. The ASO will conduct airfield inspections and surveys per FM 1-300, applicable regulations, the United States Army Safety Center guide, and other approved checklists.
- b. Helipads and landing zones will be inspected annually. Potential hazards to aviation operations will be posted on appropriate hazard maps located in flight planning areas and forwarded to respective airfield operations officers for posting.

Chapter 13 Lockout/Tagout Program

13-1. Purpose

This chapter requires that units/directorates establish a lockout/tagout program to prevent personnel injury or damage to machines or equipment from uncontrolled release of stored energy.

13-2. Explanation of terms

Special terms used in this chapter are explained in the glossary.

13-3. Responsibilities

Commanders and directors will be responsible for implementation of the lockout/tagout program. Commanders/directors will—

- a. Identify all energy-producing machines and equipment or energy-stored equipment that require lockout/tagout procedures. Examples for which lockout/tagout procedures are needed are such as clearing blocked or jammed mechanisms, performing maintenance on equipment with hydraulic, pneumatic, mechanical, steam, electrical circuits, and electronic devices.
- b. Develop a lockout/tagout training program for authorized employees including certification and documentation.
- c. Establish a lockout/tagout SOP. This SOP will establish specific procedural steps for shutting down, isolating, blocking, and securing machines or equipment to control hazardous energy.
 - d. Ensure authorized employees comply with OSHA 29 CFR 1910.147.
- e. Provide locking devices, locks, and tags to authorized employees. Lockout and tagout devices will be standardized within the facility in at least one of the following criteria: lockout devices, color, shape, size, and for tagout devices, print and format.
- f. Conduct an inventory and document all energy-producing equipment and machinery in the workplace.

13-4. Training

Supervisors will train employees in the knowledge and skills required for the safe application, usage, and removal of energy controls. Training will be documented. As a minimum, authorized/affected employees will be trained on the following—

- a. Recognition of hazardous energy sources, the type and magnitude of energy available in the workplace, and the methods and means for energy isolation and control.
 - b. Purpose and use of the energy control procedures.
 - c. Employees will not restart or reenergize a machine or equipment that has been locked out.

- d. The supervisor conducting training will ensure compliance with the OSHA 29 CFR 1910.147 standard and any specific requirements of the manufacturer. As a minimum the following will be addressed—
 - (1) Explanation of the energy control standard.
 - (2) Guidelines on when to use lockout/tagout.
 - (3) Recognition of hazardous energy sources.
 - (4) Application of energy controls.
 - (5) Removal of lockout/tagout devices.
- (6) Lockout/tagout procedures that involve more than one person, work shift change, special situations, and use of a contractor.
- (7) Training when new employees are assigned, there is a change in machine, equipment, or process that presents a new hazard and when a new energy-control procedure or standard is established.
- (8) Documentation of all training and certification that employee training completed. The certification will contain each employee's name and the dates of training.

13-5. Standard operating procedures for lockout/tagout

Authorized employees shall notify all affected employees of intent to initiate lockout/tagout procedures before service or maintenance.

- a. Operate energy-isolating device (switch, valve, or other mechanism) to isolate the machine/equipment from its energy source. Stored energy, such as in springs, elevated machine members, rotating fly wheels, hydraulic systems, and air-, gas-, steam-, or water-pressure accumulators must be dissipated or restrained by methods such as repositioning, blocking, or depressurizing.
- b. Lockout and tagout the energy-isolating devices. Each person working on the system will install his/her own lock and tag. Any equipment not capable of being locked will use a lockout system that can be directly attached or installed.
 - c. Install locks that are durable and applicable for the type of machine/equipment used.
- d. Install tags directly, or as close as safely possible, to the energy-isolating device. Position the tag so that it is immediately obvious to anyone attempting to operate the device. Attach tags with self-locking, plastic electrical ties or metal ties for heat-producing machines/equipment. Ensure the name, date, and unit or organization of the person who installed the lockout device is written on the tag and only that person will remove the lock. The only exception is that if there is an accident, the investigator will be provided a key to the lock. In cases of shift change or sickness, etc., the relieving person shall require the departing person to remove their lock and shall immediately replace it with his/her own. All affected employees will be notified of the change.
- e. Use the normal operating controls to make certain the equipment will not operate. Caution: Return operating controls to "neutral" or "off" position after the test. The equipment is now locked out and tagged out.
- f. Before restoring machines/equipment to normal production operations, ensure it is safe to operate. Make a final inspection, checking the equipment and surrounding area, to ensure that there are no

obstructions or incomplete work, and that personnel are physically clear of the machine/equipment. Remove all tools from the machine/equipment, reinstall the guards, and remove all locks and tags. Notify all affected personnel that the locks and tags have been removed and the equipment is in service.

g. Ensure that no person is exposed before connecting any energy sources. Remove the energy isolating devices to restore energy to the machine/equipment.

Chapter 14 Explosives Safety Program

14-1. Purpose

This chapter's purpose is to establish the explosives safety program, policy, and responsibilities and to provide implementing instructions regarding program requirements.

14-2. Policy

This command is committed to providing a safe and healthful workplace for its personnel by limiting personnel exposure to explosives to an absolute minimum, for the minimum amount of time, to the minimum quantity of ammunition and explosives.

14-3. General

AR 385-64 and DA Pamphlet 385-64 will govern the conduct of munitions operations.

14-4. Responsibilities

- a. The installation SOH manager will—
- (1) Serve as the installation's single point of contact for all aspects of the ammunition and explosives safety program, including management of the explosive safety program.
 - (2) Ensure preparation and annual review of explosive licenses.
- (3) Ensure site plans/safety submissions of new and revised storage facilities are thoroughly staffed within the organization and per AR 385-64. Ensure all exposures, military and civilian, are indicated on the site plans.
- (4) Coordinate and process requests for explosive safety waivers/exemptions. Ensure explosives waivers are reviewed at least annually for relevancy and applicability of control measures.
- (5) Thoroughly staff explosive safety actions before forwarding to the appropriate higher headquarters to ensure clear definition of operational needs and that the actions will satisfy projected requirements.
 - (6) Ensure annual inspections of all ammunition areas are being conducted.
- (7) Ensure ammunition activities involving transportation and storage of ammunition are being monitored for compliance with applicable explosive safety regulations.
- (8) Review explosive safety waivers, exemptions, and certificates of compelling reason, licenses and site plans/safety submissions before forwarding to the appropriate action office at higher command headquarters.
 - (9) Ensure quantity-distance arcs are being annotated on installation master planning maps.
- (10) Ensure procedures are developed and in place for training personnel responsible for ammunition and explosives operations.
 - (11) Ensure all accidents involving ammunition and explosives are reported and investigated.

- (12) Ensure that the installation safety office serves as the central record repository where all official explosives safety documents are maintained.
 - b. The director of logistics will—
- (1) Ensure ammunition operations are being conducted in licensed facilities and according to applicable explosive safety requirements.
- (2) Ensure the Quality Assurance Specialist (Ammunition Surveillance) (QASAS) coordinates with the installation safety office on conditions that require license modification or DOD Explosives Safety Board submissions.
 - (3) Provide technical assistance from the QASAS concerning all explosive safety issues.
 - (4) Provide the following items for review during explosive safety inspections—
- (a) A complete inventory by storage facility showing DOD ammunition code, storage compatibility group, nomenclature, quantity, and total net explosive weight.
 - (b) The latest lightning protection/ground system inspection report.
 - (c) Copies of work orders for corrections of safety deficiencies.
- (5) Develop written standing operating procedures for all explosive operations. All SOPs will be reviewed before final approval per USARPAC Regulation 700-107.
- (6) Ensure all personnel read and understand written procedures (SOPs) before starting any explosives operation.
 - (7) Ensure explosives limits are clearly posted for each operation and included in the SOP.
- (8) Ensure fire drills are being conducted and documented within the explosive areas at intervals of 6 months or less.
 - (9) Have a vegetation-control program for explosive-storage areas.
- (10) Ensure a USARAK Poster 420-5 (No Smoking) is posted at each entrance to an explosives storage area.
- (11) Ensure the components of the lightening-protection system are visually inspected and electrically tested per DA Pamphlet 385-64.
- (12) Ensure components of explosives facility ground systems are visually inspected and electrically tested per DA Pamphlet 385-64.
 - (13) Ensure that all personnel working with ammunition and explosives are properly trained.
 - c. The director of public works will—
 - (1) Maintain explosives safety arcs on the installation master plans.
- (2) Maintain explosives storage and operating facilities to conform to DA PAM 385-64 and TM 5-1300.

- (3) Coordinate new construction within explosive safety arcs with the installation safety office and the installation/command QASAS.
- (4) Perform maintenance on facilities and lightning protection systems in an expeditious manner when requested.
 - (5) Provide fire prevention and protection per DA PAM 385-64.
- d. The G3 will; ensure that range control personnel working with ammunition and explosives during range and live fire operations are properly trained.
 - e. Unit commanders will-
- (1) Ensure all personnel who use, handle, transport, store, inspect, test, maintain, demilitarize, or dispose of ammunition and explosives will complete safety training appropriate for their jobs. HAZMAT drivers require hazard communication familiarization, hazardous material familiarization, and function-specific, driver's training to meet certification requirements.
- (2) Ensure that the vehicle used to transport ammunition meets all the DOD and Department of Transportation requirements for movement over public roads, including proper placarding.
- (3) Ensure the ammunition is adequately packaged for safe shipment and is compatible with other ammunition loaded on to a vehicle.
- (4) Properly block, brace, or otherwise secure the ammunition load in the transport vehicle to prevent movement under all normal conditions.
- (5) Locate and store ammunition at appropriate sites at the training areas to meet inhabited building distance and/or public-traffic route distance requirements for the most hazardous munitions stored.
- (6) Ensure that safety SOPs are written for all ammunition and explosive operations. Ensure Soldiers know the safety procedures to follow if there is an accident or malfunction involving ammunition.
- (7) Ensure the ammunition is the right type for its intended use and has been approved as being safe for firing over Soldiers' heads.
 - (8) Ensure no unnecessary handling or unpackaging of ammunition.
 - (9) Ensure Soldier awareness of restrictions and prohibitions specified in the range SOPs.

14-5. Transportation of ammunition

The following are mandatory anytime that ammunition is removed from authorized storage locations, including exercises:

- a. All military and civilian personnel must be trained to minimum standards mandated by AR 385-64, AR 55-355, and Department of Transportation regulations.
- b. Avoid areas of dense population/congestion and the parking rules stated in 49 CFR must be followed. Do not park vehicle in these areas or on public parkways for any reason, except for mechanical breakdown. Guard vehicles when parked off the installation.
- c. Give drivers special instructions such as requirements for marking, placarding, mechanical condition, route of travel, and refueling. Inspect all vehicles carrying explosives using DD Form 626 (Motor Vehicle

Inspection). Each motor vehicle driver should have a copy of DD Form 836 (Dangerous Goods Shipping Paper/Declaration and Emergency Response Information of Hazardous Materials Transported by Government Vehicles/Containers/Vessels) for the load.

14-6. Department of Defense Explosives Safety Board submissions

Explosive safety site plans/safety submissions will be prepared per AR 385-64, DA Pamphlet 385-64, and DOD 6055.9-STD. Submit site plans/safety submissions for projects to include—

- a. New constructions or modification of facilities for ammunition and explosive activities.
- b. Facilities not involved with ammunition and explosives that are located within the explosives quantity-distance arcs.

14-7. Ammunition storage in unit arms room

- a. Do not use unit arms rooms in troop buildings to store hazard class/division (HD) 1.1 ammunition.
- b. Limited quantities of HD (04) 1.2, not to exceed 50 pounds net explosives weight, HD 1.3, not to exceed 100 pounds net explosives weight, or one full outer pack and HD1.4 ammunition can be stored in the arms room for force protection, alert, and security purposes consistent with mission requirements or operational necessity.
- c. Limited quantities means the minimum amount required to support operational missions (e.g., for security guard forces, military police, etc.).
- d. The amount of 1.4 ammunition required to support immediate training needs may be stored in an arms room overnight and when absolutely necessary, over a weekend, not to exceed 72 hours.
- e. Before a unit stores ammunition in an arms room, temporary or long-term, a risk assessment will be performed justifying the storage based on operational necessity and safety considerations. The risk assessment will be coordinated with the safety office, QASAS, fire and emergency services and security. The chief of staff will approve the risk assessment and it will be posted at the arms room. Arms rooms used to store ammunition will have a current explosive license issued by the installation QASAS and approved by the installation/mission safety office.

14-8. Inspections

- a. The installation safety office, in coordination with the DOL QASAS will—
- (1) Inspect all ammunition storage sites at least annually, ensuring what is actually stored is per the license issued.
 - (2) Ensure storage compatibility is correct.
 - (3) Verify quantity-distance separation requirements stipulated in license.
- (4) Evaluate storage facilities to include adequacy of earth cover on magazines, barricades, and condition of lightning protection/grounding system and ventilators.
- b. The installation safety office will ensure inspection reports are filed and outstanding deficiencies are listed on an abatement program.

14-9. Waivers/exceptions

AR 385-64 provides definitions and procedures for obtaining a waiver or exception. All requests for waivers or exceptions must be submitted through command safety channels for review. The installation safety office will coordinate waiver/exemption requests with the appropriate higher command safety office.

14-10 Contractor safety requirements

All contractor organizations will comply with the requirements of AR 385-64 and DA Pamphlet 385-64.

14-11. Field storage

Ensure that explosives stored temporarily in a field environment are per AR 385-64, DA Pamphlet 385-64, and the guide at appendix G.

Chapter 15 Ground Accident Reporting and Investigation

15-1. General

Accident reporting and investigation will be per AR 385-40, DA Pamphlet 385-40, USARPAC Regulation 385-1, and this regulation. Aviation accident reporting and investigation are addressed in chapter 12.

15-2. Responsibilities

Commanders, directors, managers, and supervisors experiencing the accident will ensure prompt accident reporting, investigation and appropriate recording.

15-3. Accident reporting and recording

- a. All accidents or Army accidents, involving Army operations, military personnel (on and off duty), civilian personnel (on duty), Army material or equipment, regardless of how minor, will be reported to the appropriate safety office. Additionally, if accidents involve any bargaining unit employee(s) or involve property damage in the workplace of bargaining unit employees, the union will be notified. Guidance on initial reporting by the unit or organization incurring the accident is in appendix J.
- b. An accident is any unplanned event that causes personal injury, illness or proper damage. An Army accident is any accident that results in injury/illness to either Army or non-Army personnel, and/or damage to Army or non-Army property as a result of Army operations.
- c. Accidents will be recorded (written report) on the appropriate DA Form or Department of Labor Form as discussed below.

15-4. Classes of Army accidents

- a. Class A.
- (1) Recordable property damage of \$1 million or more and/or Army aircraft, missile, or spacecraft destroyed.
 - (2) Personnel injury occupational illness such as fatality or permanent total disability.
 - b. Class B.
 - (1) Recordable property damage of \$200,000.00 or more, but less than \$1 million.
- (2) Personnel injury occupational illness such as permanent partial disability and/or three or more people are hospitalized as inpatients.
 - c. Class C.
 - (1) Recordable property damage of \$20,000.00 or more, but less than \$200,000.00.
- (2) Personnel injury occupational illness such as nonfatal injury resulting in loss of time from work beyond day/shift when injury occurred.
 - d. Class D. Recordable property damage of \$2,000.00 or more, but less than \$20,000.00.

15-5. Reporting on-duty accidents

- a. Class A and B Army accidents.
- (1) Military. Person(s) involved in or aware of a class A or B Army accident will immediately report it by the fastest means possible to the commander/supervisor directly responsible for the operation, material, or person(s) involved. The commander/supervisor who first becomes aware will secure the accident site, notify the immediate commander/supervisor of all personnel involved, the appropriate safety office and the United States Army Safety Center by telephone. Be prepared to provide the information required by DA Form 7306-R (Telephonic Notification of Ground Accident) worksheet in AR 385-40. The safety office will ensure telephonic notification has been made to the United States Army Safety Center and the USARPAC safety office. Unless otherwise notified, written reports for all on-duty, class A and B accidents will be completed on DA Form 285 (U.S Army Accident Report) and the original provided to the safety office within 30 days of occurrence. Attach additional information to the report as required, (i.e., parachuting supplemental information).
- (2) Civilian. Person(s) involved in or aware of a class A or B Army accident will immediately report it by the fastest means possible to the commander/supervisor directly responsible for the operation, material, or person(s) involved. The commander/supervisor who first becomes aware will secure the accident site, notify the immediate commander/supervisor of all personnel involved, the responsible safety office and the United States Army Safety Center by telephone. Be prepared to provide the following information: what happened, where it happened, civilian employees' social security number, age, job series, and title. The safety office will ensure telephonic notification has been made to the United States Army Safety Center and the USARPAC safety office. As soon as possible, complete the appropriate Department of Labor Form CA-1 (Federal Employee's Notice of Traumatic Injury and Claim for Continuation of Pay/Compensation), Department of Labor Form CA-2 (Notice of Occupational Disease and Claim for Compensation), or Department of Labor Form CA-6 (Official Superior's Report of Employee's Death). Submit the original report directly to Workers Compensation Program administrator at the civilian personnel advisory center. Unless otherwise notified, furnish a copy of the Department of Labor form to the safety office within 10 days of occurrence.

b. Class C and D Army accidents:

- (1) Military. Person(s) involved in or aware of a class C or D Army accident will immediately report it by the fastest means possible to the commander/supervisor directly responsible for the operation, material, or person(s) involved and the responsible safety office. Complete the written report on DA Form 285-AB-R (U.S. Army Abbreviated Ground Accident Report (AGAR)) and provide the original to the appropriate safety office within 10 days of accident occurrence. Attach additional information to the report as required.
- (2) Civilian. Person(s) involved in or aware of a class C or D Army accident will immediately report it by the fastest means possible to the commander/supervisor directly responsible for the operation, material, or person(s) involved and the responsible safety office. As soon as possible, complete the appropriate Department of Labor Forms CA-1 and CA-2 and submit the original report directly to Workers Compensation Program administrator at the civilian personnel advisory center. Furnish a copy of the Department of Labor form to the safety office within 10 days of occurrence.

15-6. Reporting off-duty accidents (military only)

a. Class A and B Army accidents. Person(s) involved in or aware of a class A or B Army accident will immediately report it by the fastest means possible to the commander directly responsible for the operation, material, or person(s) involved. The commander who first becomes aware will notify the immediate commander of all personnel involved, the safety office, and the United States Army Safety Center by telephone. Provide information as requested by DA Form 7306-R worksheet in AR 385-40. The safety office will ensure telephonic notification has been made to the United States Army Safety Center

and the USARPAC safety office. Complete the written report on DA Form 285-AB-R and provide the original to the safety office within 10 days of the accident occurrence.

- b. Class C and D Army accidents. Person(s) involved in or aware of a class C or D Army accident will immediately report it by the fastest means possible to the commander/supervisor directly responsible for the operation, material, or person(s) involved. Complete the written report on the DA Form 285-AB-R and provide the original to the safety office within 10 workdays of the accident occurrence.
- c. Immediately report all accidents that may cause adverse publicity, involving munitions, chemical agents, radiation, and equipment to the safety office through the appropriate command channels.

15-7. Reporting accidents other than classes A through D

- a. All accidents, either on or off duty, that do not meet the criteria for accident classes A through D are still reportable to the supporting safety office. The reporting of these accidents is necessary for identifying accident trends and for accident prevention efforts.
- b. Other than class A through D accident reports will contain the following data elements and can be submitted by telephone, facsimile, e-mail, or in person to the supporting safety office. (See fig 15-1.)
 - (1) Name of individual involved
 - (2) Grade/rank
 - (3) Individual's unit and age
 - (4) Date/Time of accident/injury
 - (5) Number of restricted duty days
 - (6) Injury and/or property damage
 - (7) What happened
 - (8) Location of accident/injury
 - (9) Preventive action taken
 - (10)Person reporting and phone number
 - (11)Safety officer/NCO and phone number
- c. This information should be submitted within 10 days of the accident. The supporting safety office may request additional information if required.

15-8. Investigation procedures

All accidents will be investigated to find out what happened, why it happened, and what can be done to prevent it from happening again. The primary purpose of accident investigation is accident prevention.

a. Military accidents. Investigations will be documented on DA Form 285 or DA Form 285-AB-R and forwarded through the appropriate command channels for review to the safety office for final review. The unit safety NCO/officer will be the point of contact for the accident report. The unit commander or organization manager/director will sign the command review. Forward the original to the safety office

within 10 workdays of the occurrence and keep a copy at the unit. The safety office will review the report for deficiencies and sign the safety office review. As a minimum, follow these guidelines when arriving on an accident scene.

- (1) Ensure that anyone needing medical attention is cared for and casualties evacuated and treated, as required.
 - (2) Secure the accident site to prevent disturbance until relieved by proper authority.
- (3) Obtain as much factual information as possible i.e., date, time, location, cause, actions, type of equipment involved, persons involved (name, rank, social security number, and unit of assignment), and note the location of all pieces of equipment.
 - (4) Investigation will be conducted per DA Pamphlet 385-40.
- b. Civilian accidents (on-duty only). Supervisors will investigate all accidents, complete a USARAK Form 19 (Civilian Injury Inquiry) and forward a copy as soon as possible to the appropriate installation safety office by fax or email. In case of fatal or other serious injuries, notify the safety office by the most expeditious means possible.
- c. Centralized accident investigations (CAI). Upon notification of an (on duty) class A or B ground accident, the United States Army Safety Center commander will determine whether a centralized accident investigation or an installation-level accident investigation will be conducted. If a centralized accident investigation will be conducted, the command SOH manager will coordinate with United States Army Safety Center and serve as the central point of contact/local advisor for the board.
- d. Installation-level accident investigation (IAI): The USARAK commander will appoint installation-level accident investigation board members from outside the organization that incurred the accident. The command SOH manager will assist the commander in selecting board members. USARAK deputy chief of staff for personnel prepares appointment orders for the USARAK commander's signature and notifies members. USARAK deputy chief of staff for personnel will coordinate with the USARAK deputy chief of staff for resource management for fund cite and board member temporary duty requirements. During out-of-state deployments, the USARAK commander will determine whether to form the accident board on site, in Alaska or whether to form the board utilizing nonUSARAK units (i.e., continental United States units).

NUMBER

NON-CLASSIFIED ACCIDENT REPORT FORM (ACCIDENTS WITH NO LOST TIME OR WITH DAMAGE TO GOVERNMENT PROPERTY LESS THAN \$2,000.00) NAME OF INDIVIDUAL INVOLVED GRADE/RANK INDIVIDUAL'S UNIT AGE RESTRICTED DUTY TIME -DATE OF ACCIDENT TIME OF ACCIDENT (NUMBER OF DAYS) **INJURY** PROPERTY DAMAGE WHAT HAPPENED? LOCATION OF ACCIDENT/INJURY PREVENTIVE ACTION TAKEN PERSON REPORTING ACCIDENT/INJURY PHONE NUMBER SAFETY OFFICER/NCO NAME PHONE

Figure 15-1. Non-Class Accident Report Form, USARAK Form 45

Chapter 16 Civilian Resource Conservation Program Committee

16-1. General

This chapter establishes the membership of the Civilian Resource Conservation Program (CRCP) Committee, designates the chairperson, and describes responsibilities. Coordination is a key element among the CRCP committee members and organizations that represent the installation commander for the purpose of devising means to prevent civilian accidents and lost-time injuries. Reducing Federal Employees' Compensation Act claims requires the support of top-level leadership, management, and continuous coordination with supervisors at all levels. The goal of the CRCP committee is to reduce civilian lost-time injuries, compensation costs, long-term compensation rolls, and continuation of pay.

16-2. CRCP committee members

The CRCP committee membership will consist of the following:

- a. Commander USAG, Alaska (chair).
- b. Director of the civilian personnel advisory center.
- c. Civilian personnel advisory center worker's compensation program administrator (recorder).
- d. Installation safety and occupational health manager.
- e. Preventive medicine officer.
- f. Occupational health nurse.
- g. Industrial hygienist.
- h. Director of public works.
- i. G3.
- i. G4.
- k. Director of DCA.
- I. Chief of criminal investigation division.
- m. Local labor representative.

16-3. Responsibilities

- a. Commander USAG, Alaska or designated representative will chair the committee. The committee will meet at least annually or when directed by the chairperson.
- b. The Civilian Personnel Advisory Center (CPAC) worker's compensation program administrator will serve as recorder, prepare agendas, coordinate and conduct meetings, record minutes, and forward minutes of each meeting to members. The administrator maintains a log of civilian occupational injuries and illnesses (such as the OSHA Form 300 (Log of Work-Related Injuries and Illnesses)) for USARAK and provides a summary of work-related injuries and illnesses (such as the OSHA Form 300A (Summary

of Work-Related Injuries and Illnesses)) to each directorate annually, not later than 45 days after the close of each fiscal year.

- c. Directors will ensure the summary of work-related injuries and illnesses is posted in the workplace, on the official bulletin board for a period of 30 days, and provide a copy to each work site supervisor.
- d. The installation SOH manager, at the advice of the chairperson or committee members, will contact supervisors with significant statistical increases in lost-time injuries or illnesses. Installation SOH managers will assist supervisors in accident investigations, performing safety inspections, ergonomic surveys, safety training, workplace job hazard analysis, and make recommendations to reduce or eliminate workplace hazards.
- e. Preventive medicine, industrial hygiene, in coordination with the installation SOH manager, will perform workplace, industrial hygiene surveys, assist in conducting ergonomic surveys, safety training, job hazard analysis, and making recommendations to reduce or eliminate workplace hazards.
- f. Members of the committee or their designated representative will attend the civilian resource conservation program meetings and be prepared to make recommendations to the chair focused at reducing accidents and lost-time injuries in the workplace.

Chapter 17 Safety Awards Program

17-1. Purpose

This chapter establishes the command safety-awards program. It prescribes responsibilities, procedures, and prerequisites for qualification.

17-2. General

The safety awards program will serve to recognize units, activities, and individuals that make significant contributions to the accident-prevention effort.

17-3. Responsibilities

Commanders and directors at all levels will establish and implement the safety-awards program.

17-4. Procedures

- a. Unit/organization safety awards.
- (1) The mission safety office will present an annual safety award to military unit(s) and the installation safety office will present an annual safety award to civilian organization(s) with the best overall accident prevention program.
- (2) The standards for selection will be the checklist at figure 17-1. The safety awards will be based on safety administration and positive safety improvement efforts of the unit's/organization's safety program during the past fiscal year.
- (3) The respective mission/installation safety office will evaluate each military unit and civilian organization no less than once each year. The respective safety office will make the selections, determine the type of award, and coordinate the presentation with the unit's/organization's higher headquarters.
 - b. Individual safety awards.
- (1) Individuals must be nominated by their supervisor and recommended to the unit/activity commander/directorate for a safety award. Normally, individual awards will be presented to those recommended individuals who have made significant contributions to the accident-prevention program over a 1-year period.
- (2) Individual award criteria are outlined in AR 672-74. Unit commanders have approval authority for individual awards, DA Form 1118 (Certificate of Merit for Safety) and DA Forms 1119 (Certificate of Achievement in Safety) and 1119-1 (Certificate of Achievement in Safety). Commanders may also request an inscribed award (impact award) from the appropriate safety office to accompany the DA certificate.
- (3) To receive a command-level individual award (USARAK Form 873, United States Army Alaska Certificate of Achievement) unit commanders submit requests to the appropriate safety office. The safety office will concur or nonconcur with the request. The safety office will forward award recommendations for processing to the appropriate approval authority.
 - c. Safe-driver awards for Army, motor-vehicle operations.

- (1) The safe operation of Army, motor vehicles plays an important role in the success or failure of the accident-prevention program. A safe-driver awards program provides recognition of each individual's safe driving record.
- (2) Individual award criteria are outlined in AR 672-74. Unit commanders have approval authority for Army motor vehicle driver safety awards and DA Forms 1119 and 1119-1 (United States Army Certificate of Achievement in Safety). Commanders may also request an inscribed award (impact award) from the appropriate safety office to accompany the DA certificate.
- d. Types of awards. The types of awards include plaques, pen sets, gold pans, and trophies. The safety office will determine what type of award is presented.
 - e. Safety incentive awards.
- (1) Military units: Battalion level organizations achieving a zero (Class A through C) accident safety record, at the discretion of the commander, will be awarded a training holiday for each 180-day period they are accident free throughout the fiscal year. Subordinate commanders can augment this safety incentive award program with their own incentives program.
- (2) Civilian organizations: Directorate level organizations achieving a zero (Class A through C) accident safety record, at the discretion of the commander or director, will be awarded one-half day for an (organizational celebration day) for each 180-day period they are accident free throughout the fiscal year.

17-5. Safety program evaluation checklist

See the evaluation checklist in figure 17-1.

17-6 Aviation safety awards

- a. Unit safety awards.
- (1) Unit commanders will submit requests for unit awards for accident-free flying through the battalion commander to the USARAK ASO, Attention: APVR-WPTM-AV. The eligibility criteria for unit awards is a minimum of 1500 hours of accident-free flying, without experiencing a human-factor-related, class A, B, or C accident as defined in AR 385-40. Subsequent awards will be in increments of 1000 hours, (i.e., 2500, 3500 and so forth).
- (2) Unit safety performance or accomplishments must be verifiable. The USARAK ASO will verify and concur or nonconcur with the request.
 - b. Individual safety awards.
 - (1) Crew member safety awards.
- (a) End-of-tour awards. Personnel are eligible for the USARAK Form 873 for a completed, accident- and violation-free flying tour in Alaska, providing no other hourly award was received.
- (b) Alaska hourly awards. Aviators, crew chiefs, flight engineers or flight medics become eligible for the following awards upon achieving the prescribed number of military, accident- and violation-free flight hours in Alaska. Hours may be accumulated over more than one tour. Accidents attributed solely to material failure do not prevent a crewmember from receiving an award.
- (c) For 250 hours, the awardee receives USARAK Form 873 and an appropriately inscribed small gold pan.

- (d) For 500 hours, the awardee receives the USARAK Form 873 and an appropriately inscribed desk set.
- (e) For 1000 hours, the awardee receives the USARAK Form 873 and an appropriately inscribed gold pan.
- (f) For 1500 hours, the awardee receives the USARAK Form 873 and an appropriately inscribed ulu.
- (g) For 2000 hours, the awardee receive the USARAK Form 873 and an appropriately inscribed award as determined by the USARAK ASO, provided such awards are available.
 - (2) Noncrew member safety awards.
- (a) End-of-tour awards. Personnel not eligible for an hourly award receive a USARAK Form 873 for their accident- and incident-free tour in Alaska.
- (b) Alaska hourly awards. Noncrew members become eligible for the following awards upon achieving the prescribed number of military, accident- and violation-free flight hours in Alaska. Hours may be accumulated over more than one tour. Accidents attributed solely to material failure do not prevent the noncrew members from receiving an award.
- (c) For 125 hours, the awardee receives the USARAK Form 873 and an appropriately inscribed small gold pan.
- (d) For 250 hours, the awardee receives the USARAK Form 873 and an appropriately inscribed desk set.
- (e) For 500 hours, the awardee receives the USARAK Form 873 and an appropriately inscribed gold pan.
- (f) For 750 hours, the awardee receives the USARAK Form 873 and an appropriately inscribed ulu.
- c. Impact awards. Personnel who identify an extremely hazardous situation or make a significant contribution to the USARAK aviation safety program that directly prevents a serious mishap are eligible for an impact award as follows:
 - (1) At a minimum, USARAK Form 873.
- (2) An appropriately inscribed award as determined by the USARAK ASO, provided such awards are available.

Safety program	
a. Is the commander's/director's safety philosophy letter published and poste	ed? <u>5 points</u>
b. Is the unit/activity safety SOP published and distributed?	_ <u>_5</u> points
c. Are all the required safety references on hand or on order?	_ <u>5</u> points
Designated safety representatives	
a. Is the unit/activity safety officer/NCO or civilian appointed in writing?	<u>5</u> points
b. Has the safety officer/NCO or civilian been properly trained?	_ <u>5</u> points
Commanders/directors safety goals and objectives	
a. Are the safety goals clearly established in writing?	_ <u>5</u> points
b. Are the safety goals realistic and achievable?	_ <u>5</u> points
c. Are the safety goals being managed and are they measurable?	_ <u>5</u> points
Proactive accident prevention programs	
Does the unit/activity have written, innovative, safety programs in effect?	<u>5</u> points
Reporting hazards and safety violations	
Are all the unit personnel informed in writing on how to report hazards and s violations and are they encouraged to do so?	afety <u>5</u> points
Training standards and enforcement	
a. Is risk management trained, emphasized, required, and enforced?	_10 points
b. Is safety and risk management integrated (in writing) into all operations?	10 points
Accident investigation	
Are accident investigations conducted per AR 385-40 and DA Pamphlet 385	-40? <u>10 points</u>
Accident reporting	
Is the unit reporting accidents per AR 385-40 and USARAK Regulation 385-	1? <u>10_</u> points
Accident rates	
Are rates of class A through C accidents down from previous year?	10 points
	Possible Total: 100 points

Figure 17-1. Safety program evaluation checklist

Chapter 18 Bloodborne Pathogens

18-1. Purpose

This chapter's purpose is to establish an exposure-control plan, provide guidelines, and assign responsibilities for the implementation of 29 CFR 1910.1030.

18-2. General

All military and civilian personnel must be aware of actions to be taken when personnel come into contact with another person's body fluids. This exposure-control plan is designed to eliminate or minimize occupational exposure. Meaning; reasonably anticipated skin, eye, mucous membrane, or parenteral (means piercing mucous membranes or the skin barrier through such events as needlesticks, human bites, cuts, and abrasions) contact with blood or other potentially infectious materials that may result from performance of an employee's duties.

18-3. Responsibilities

Commanders and supervisors of employees occupationally exposed to bloodborne pathogens will ensure that a local, written, exposure-control plan is established addressing engineering and work practice controls, PPE, training, medical surveillance, hepatitis B vaccination, signs and labels, and a sharpsinjury log for recording percutaneous (means through the skin) injuries from contaminated sharps is maintained per 29 CFR 1910.1030.

18-4. Training

- a. All military police, civilian and military medical personnel, military and civilian fire fighters, other emergency-response, military or civilian personnel, laundry workers, lifeguards, etc., will receive annual training on the risks from exposure to human immunodeficiency virus, hepatitis B virus, hepatitis C virus, and other bloodborne pathogens.
- b. All other civilian and military personnel must be trained on what to do in case of a casual contact with another person's body fluids. In case of a casual contact with another person's body fluids during an accident or medical emergency, take the following action:
- (1) If during a medical emergency or an accident where the body fluid of any persons make contact with hands, arms, legs, face, etc., you should make every effort to decontaminate at the accident site by washing the fluid from the surface of your skin with soap and water.
- (2) If during a medical emergency or an accident where the body fluid of any persons make contact with hands, arms, legs, face, etc., and any of the fluids come into contact with an open cut, sore, or other broken-skin surface, you should make every effort to decontaminate at the accident site by washing the fluid from the surface of your skin with soap and water.
- (3) Any splash contact, especially to the eyes, mucous membranes, or any questionable contamination contact the nearest medical facility within 2 hours for medical surveillance. Report the incident to occupational health as soon as possible.

18-5. Preventive measures

Civilian and military personnel with occupational exposure to human immunodeficiency virus and hepatitis B virus will have hepatitis B vaccinations. Vaccinations will be made available at no cost to the worker within 10 days of initial bloodborne pathogens training or before starting work in an occupation where an occupational exposure is possible.

18-6. Recordkeeping

Preserve and maintain a medical record for each employee who has had an occupational exposure. Medical records must be maintained for at least the duration of employment plus 30 years. Training records documenting initial and each annual training session are kept for 3 years.

Chapter 19 Traffic Safety and Vehicle Accident Prevention Program

19-1. Purpose

This chapter establishes responsibilities, prescribes policies and procedures, and implements the traffic safety and vehicle accident prevention program.

19-2. General

Army motor vehicle and POV accidents continue to be the number one killer of Soldiers. Non-motorized vehicle accidents, i.e., bicycles, skates, skateboards, roller blades, and scooters are the number one contributors to injuries of children. For these reasons, it is important that command establish a written traffic safety and vehicle accident prevention program to help reduce to a minimum or eliminate these accidents.

19-3. Responsibilities

Commanders, directors, managers, supervisors, on-installation contractors, and tenant units that operate motor vehicles will comply with this regulation, AR 385-55, and AR 600-55. Responsibilities include ensuring that procedures are developed for the safe operation of Army motor vehicles, mechanical, material handling or ground support equipment, POVs (on and off installation for military personnel), and vehicle maintenance. Documentation of vehicle inspections, supervision of Army drivers, investigating and reporting accidents, motivating safe performance, and driver selection, training, and licensing is mandatory.

19-4. Army motor vehicles

- a. Army motor vehicle driver education. All Soldiers and DA civilian employees required to operate Army motor vehicles will be given classroom instruction in traffic safety, applicable laws, accident avoidance, individual responsibility, response to routine and emergency situations. Initial education will be given as soon as possible after entry into government service and every 4 years thereafter. This instruction will be documented.
- b. Military/civilian organizations. Commanders, directors, or managers of personnel required to operate Army motor vehicles will establish a written driver and operator standardization program for selection, training, testing, and licensing of personnel per AR 600-55. This program will include Army motor vehicles, mechanical, material handling or ground-support equipment, and night-vision devices. Winter driver's training will be completed annually and annotated on the operator's identification card.

19-5. Privately owned vehicles (POV)

a. Inspection and registration. Every Soldier's POV will be safety inspected before any 3- or 4-day weekend and at the beginning of the winter driving season at a minimum. Documentation will be maintained on file with the unit's safety officer/NCO. Safety checklists are available at the installation safety office. POVs, including motorcycles, owned by assigned Soldiers or DA civilian employees and operated on installation must have a current state registration and be registered at the military police station within 3 working days of arrival or purchase. Proof of completion of an Army approved motorcycle safety course is required prior to registering any street legal motorcycle, motor scooter or moped.

b. Motorcycle safety.

(1) On installation. To operate a motorcycle (on road or street legal off road versions) motor scooter, or moped on installation, Soldiers and DA civilian employees, regardless of whether the motorcycle is registered on installation, must be appropriately licensed and complete an Army approved motorcycle

safety course. Courses will be provided by the installation safety office at no cost to Soldiers, their family members, and DA civilian employees who have a need to register and operate motorcycles on installation. Anyone operating a motorcycle, on or off road version on any Army installation will wear proper personal protective clothing and equipment. This includes a DOT, ANSI or Snell Memorial Foundation certified approved helmet, impact or shatter resistant goggles or full face shield properly attached to the helmet, sturdy leather boots or over the ankle shoes, full-fingered gloves, long trousers, long-sleeved shirt or jacket. A high-visibility brightly colored outer upper garment during the day and retroreflective for night. Passengers will also comply with these requirements. All motorcycles and mopeds operated on the installation must have two rearview mirrors and headlights will be turned on at all times.

- (2) Off installation. Soldiers (on or off duty) will be licensed appropriately; complete an Army approved motorcycle safety course and wear the same personal protective clothing and equipment as required for on installation operators. Headlights will be turned on at all times.
- c. All terrain vehicles and snowmachines: To operate an all-terrain vehicle or snowmachine on the installation, individuals must complete the safety instruction provided by outdoor recreation center and will wear the same personal protective clothing and equipment required for operating motorcycles.
- d. Privately owned vehicle driver education. All Soldiers under the age of 26 who possess a driver's license will receive annually, at a minimum, 1 hour of classroom instruction in traffic safety, applicable laws, accident avoidance, emergency situations, and individual responsibility. Training will be documented. Resources are available at the installation safety office to assist in conducting this training.
- e. Enforcement of traffic laws and consequences of violations. Military police will enforce traffic regulations and depending on the violation, refer violators to the command or United States Magistrate Court. Soldiers who have been convicted of a moving violation or who have been determined through an accident investigation to be at fault in a traffic accident, may be considered for appropriate Uniform Code of Military Justice or adverse administrative action at the discretion of the Soldier's commander.

19-6. Six-point privately owned vehicle accident prevention

- a. Command emphasis. Positive no-nonsense leadership at every level is imperative. Leaders will relentlessly emphasize POV safety. Junior officers and NCOs will know their Soldiers, know where they go, and what they do and assert positive influences on how, when, and where they operate their POVs. Leaders must influence Soldiers to modify their risky behavior on and off duty.
- b. Discipline. Negative behavior (traffic offenses, alcohol or drug abuse, misconduct, underage drinking, substandard job performance, etc.) is often an indication of other underlying problems. These are signals that telegraph "at-risk" Soldiers, and can translate later into POV accidents. Leaders will know Soldiers who are prone to risky behavior, counsel them, and take actions to protect them and the public.
- c. Risk management. Use risk management to reduce risks, identify hazards, assess hazards, make decisions to control them, implement the controls, and supervise execution. The POV Risk Management Toolbox, developed for commanders and leaders, and available at http://safety.army.mil provides tools and countermeasures designed to help leaders prevent POV accidents. Use these tools to protect Soldiers on and off duty.
- d. Standards. Leaders will set high, unmistakable standards. Educate and train your Soldiers on the use of seatbelts and other safety equipment. Teach Soldiers about the risks of speed, fatigue, and the use of alcohol. Emphasize use of a designated driver for social events and conduct POV safety inspections. Do not compromise when enforcing these standards.
- e. Provide alternatives. Provide alternatives for Soldiers to driving POVs. Schedule activities on installation to keep Soldiers off the road. Look for transportation alternatives and promote the use of

alternative methods to POV use. Prominently post public transportation schedules in the unit. Encourage Soldiers to call a supervisor, a taxicab, or to remain overnight in a hotel if they have been drinking alcohol.

f. Commander's assessment. Following every fatal or serious-injury POV accident, commanders will conduct an assessment of the accident with the involved Soldier's chain of command. The focus is to determine what happened, why it happened, and how it can be prevented from happening in the future. Countermeasures will be developed, implemented, and lessons learned will be publicized and briefed to every Soldier in the unit.

19-7. Passengers in Pick-Up Truck Beds

- a. Transportation of passengers in open-bed pick-up trucks on military installations in Alaska is prohibited unless the vehicles are equipped with seats and seat belts in the open-bed area. Soldiers are directed not to ride in or transport others in open-bed vehicles that are not configured with seats and seat belts, on or off installation.
- b. This applies to all open-bed vehicles, regardless of whether a cap or shell encloses the open-bed.

19-8 Nonmotorized vehicles

All individuals who operate nonmotorized vehicles, i.e., bicycles, skates, skateboards, roller blades, and scooters etc., will wear helmets approved by DOT, ANSI or Snell Memorial Foundation. Bicyclist will comply with all state laws when operating on Army installations. This applies to all personnel, including family members and guests, who ride on the installation.

19-9. Pedestrian safety

- a. Reflective or fluorescent PPE will be provided to and used by all Army personnel, military or civilian, who are exposed to traffic hazards as part of their assigned duties, e.g., physical training, marching troops, traffic control, road crews, road guards, and maintenance personnel. Lights will be used by troop formations during periods of reduced visibility.
- b. The speed limit when passing a troop formation from either the front or rear is 10 miles per hour. Motorists will not jeopardize the safety of troop formations. If the potential exists where a vehicle operator is in doubt of safely passing a formation, the operator will stop and wait for directions from the person in charge of the formation. To minimize contact between motorized vehicles and physical training participants/marching troops, physical training routes and moving vehicles are restricted between the hours of 0630 and 0730 hours, Monday through Friday, in accordance with the Memorandum of Agreement between U. S. Army Alaska and AFGE Local 1712 (Fort Richardson) and the Memorandum of Agreement between U. S. Army Alaska and AFGE Local 1834 (Fort Wainwright).
- c. Individuals are not authorized to skate, skateboard, ride scooters, roller blade, jog, run, or walk on roadways during high-traffic density and peak traffic hours.
- d. The use of headphones or earphones while walking, jogging, skating, or bicycling on Army installation roads or streets is prohibited.

Chapter 20 Updating Procedures

20-1. The command safety and occupational health program consists of many subprograms. Furthermore, federal state and Army safety regulations undergo frequent revisions and additions. Accordingly, the proponent will provide subprograms as chapters, as they become available.

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Appendix A References

Section I Required Publications

	(The Army Radiation Safety Program) is cited in paragraphs 8-4 and	
8-5a and paragraphs 8-8a, 8-10c, and 8-14d.		
AR 40-5	(Preventive Medicine) is cited in paragraph 8-5a and appendix F.	
AR 385-10	(The Army Safety Program) is cited in paragraphs 1-5a(1), 4-3c, and paragraphs 6-2d, 6-3d(3)), 10-4, 11-1, 11-3h(1), and 11-4b.	
AR 385-40	(Accident Reporting and Records) is cited in paragraph 1-5d(12) and paragraphs 9-3c(6), 12-6c, 15-1, 15-3, 15-5a(1), 15-6a, 17-6a(1), and figure 17-1, appendix G, and paragraph J-1b.	
AR 385-55	(Prevention of Motor Vehicle Accidents) is cited in paragraph 10-5 and paragraph 19-3.	
AR 385-63	(Policies and Procedures for Firing Ammunition for Training, Target Practice and Combat) is cited in paragraphs 9-2, 9-3, and 9-4a.	
AR 385-64	(U.S. Ammunition and Explosives Safety Program) is cited in paragraphs 9-4a, 14-3, 14-4a(3), 14-6, 14-9, and 14-10 and appendix G.	
AR 385-95	(Army Aviation Accident Prevention) is cited in paragraphs 12-3 and 12-5.	
AR 600-55	(The Army Driver and Operator Standardization Program (Selection, Training, Testing, and Licensing)) is cited in paragraphs 19-3 and 19-4b.	
AR 672-74	(Army Accident Prevention Awards Program) is cited in paragraph 17-4.	
DA Pamphlet 385-1	(Small Unit Safety Officer/NCO Guide) is cited in paragraph 6-2c and paragraph 10-4.	
DA Pamphlet 385-40	(Army Accident Investigation and Reporting) is cited in paragraph 9-3c(6) and paragraphs 12-6c, 15-1, 15-3, and 15-8a(4) and figure 17-1.	
FM 100-14	(Risk Management) is cited in paragraphs 2-2c, 2-6, and 10-3.	
USARPAC Regulation 385-1	(United States Army Pacific Command Safety Program) is cited in paragraphs 1-5a(1) and 15-1, and figure 17-1.	
USARAK Regulation 350-1	(United States Army Alaska Training Directive) is cited in paragraph 9-2.	
USARAK Regulation 350-2	(United States Army Alaska Range Regulation) is cited in paragraph 9-2.	
Section II Related Publications		
10 CFR	(Department of Energy, Nuclear Regulatory Commission).	

29 CFR	(Department of Labor, Occupational Safety and Health Administration).	
49 CFR	(Department of Transportation, Research, and Special Program).	
AR 10-5	(Organization and Functions, Headquarters, Department of the Army).	
AR 11-34	(The Army Respiratory Protection Program).	
AR 25-400-2	(The Modern Army Recordkeeping System (MARKS)).	
AR 50-7	(Army Reactor Program).	
AR 55-355	(Defense Traffic Management Regulation).	
AR 75-1	(Malfunctions Involving Ammunition and Explosives).	
AR 95-1	(Flight Regulations).	
AR 190-11	(Physical Security of Arms, Ammunition, and Explosives).	
AR 385-16	(System Safety Engineering and Management).	
AR 385-61	(The Army Chemical Agents Safety Program).	
AR 385-62	(Regulations for Firing Guided Missiles and Heavy Rockets for Training, Target Practice, and Combat).	
	•	
AR 420-90	(Fire and Emergency Services).	
	(Fire and Emergency Services)(Personnel Relations and Services).	
AR 690-700		
AR 700-141	(Personnel Relations and Services).	
AR 700-141AR 710-2	(Personnel Relations and Services)(Hazardous Material Information System (HMIS)).	
AR 700-141 AR 710-2 DA Pamphlet 40-18	(Personnel Relations and Services)(Hazardous Material Information System (HMIS))(Inventory Management Supply Policy Below the Wholesale Level)(Personnel Dosimetry Guidance and Dose Recording Procedures for	
AR 700-141 AR 710-2 DA Pamphlet 40-18	(Personnel Relations and Services)(Hazardous Material Information System (HMIS))(Inventory Management Supply Policy Below the Wholesale Level)(Personnel Dosimetry Guidance and Dose Recording Procedures for Personnel Occupationally Exposed to Ionizing Radiation)(Hearing Conservation Program).	
AR 700-141	(Personnel Relations and Services)(Hazardous Material Information System (HMIS))(Inventory Management Supply Policy Below the Wholesale Level)(Personnel Dosimetry Guidance and Dose Recording Procedures for Personnel Occupationally Exposed to Ionizing Radiation)(Hearing Conservation Program).	
AR 690-700	(Personnel Relations and Services)(Hazardous Material Information System (HMIS))(Inventory Management Supply Policy Below the Wholesale Level)(Personnel Dosimetry Guidance and Dose Recording Procedures for Personnel Occupationally Exposed to Ionizing Radiation)(Hearing Conservation Program)(Industrial Hygiene Program).	
AR 690-700	(Personnel Relations and Services)(Hazardous Material Information System (HMIS))(Inventory Management Supply Policy Below the Wholesale Level)(Personnel Dosimetry Guidance and Dose Recording Procedures for Personnel Occupationally Exposed to Ionizing Radiation)(Hearing Conservation Program)(Industrial Hygiene Program)(Ammunition and Explosives Safety Standards).	
AR 690-700	(Personnel Relations and Services)(Hazardous Material Information System (HMIS))(Inventory Management Supply Policy Below the Wholesale Level)(Personnel Dosimetry Guidance and Dose Recording Procedures for Personnel Occupationally Exposed to Ionizing Radiation)(Hearing Conservation Program)(Industrial Hygiene Program)(Ammunition and Explosives Safety Standards)(Using Unit Supply System (Manual Procedures)).	
AR 690-700	(Personnel Relations and Services)(Hazardous Material Information System (HMIS))(Inventory Management Supply Policy Below the Wholesale Level)(Personnel Dosimetry Guidance and Dose Recording Procedures for Personnel Occupationally Exposed to Ionizing Radiation)(Hearing Conservation Program)(Industrial Hygiene Program)(Ammunition and Explosives Safety Standards)(Using Unit Supply System (Manual Procedures))(Ammunition and Explosives Safety Standards).	

DODI 6055.4	(Traffic Safety Program).	
DODI 6055.7	(Accident Investigation, Reporting, and Records Keeping).	
EM 385-1-1	(U.S. Army Corps of Engineers Safety and Health Requirements Manual).	
Executive Order 12196	(Occupation Safety and Health Programs for Federal Employees).	
FM 1-300	(Flight Operations Procedures).	
FM 3-100.12	(Risk Management Multiservices Tactics, Techniques and Procedures).	
FM 10-67-1	(Concepts and Equipment of Petroleum Operations).	
FM 20-11	(Military Diving).	
FM 55-30	(Army Motor Transport Units and Operations).	
FM 101-5	(Staff Organization and Operation).	
Public Law 91-596	(Occupation Safety and Health Act of 1970).	
TB 43-0108	(Handling, Storage, and Disposal of Aircraft Components Containing Radioactive Materials).	
TB 43-0116	(Identification of Radioactive Items in the Army).	
TB 43-0122	(Identification of US Army Communications-Electronics Command Managed Radioactive Items in the Army Supply System).	
TB 43-0133	(Hazard Controls for CECOM Radio Frequency and Optical Radiation Producing Equipment).	
TB 43-0142	(Safety Inspection and Testing of Lifting Devices).	
TB 43-0216	(Safety and Hazard Warnings for Operation and Maintenance of TACOM Equipment).	
TB 385-4	(Safety Requirements for Maintenance of Electrical and Electronic Equipment).	
TB 700-2	(Department of Defense Ammunition and Explosives Hazard Classification Procedures).	
TB 750-25	(Maintenance of Supplies and Equipment: Army Test, Measurement and Diagnostic Equipment (TMDE) Calibration and Repair Support (C&RS) Program).	
TB MED 502	(Respiratory Protection Program).	
TB MED 522	(Control of Health Hazards from Protective Material Used in Self- Luminous Devices).	

TB MED 523	(Control of Health Hazards from Microwave and Radio Frequency Radiation and Ultrasound).		
TB MED 524	(Control of Hazards to Health from Laser Radiation).		
TB MED 575	(Swimming Pools and Bathing Facilities).		
TM 5-1300	(Structures to Resist the Effects of Accidental Explosions).		
TM 38-250	(Preparing Hazardous Materials for Military Shipment).		
TM 55-315	(Transportability Guidance for Safe Transport of Radioactive Materials).		
USARAK Regulation 40-2	(Occupational Health Program).		
USARAK Regulation 40-5	(Prevention of Cold Injury).		
USARAK Regulation 55-2	(Transportation and Travel).		
USARAK Regulation 95-1	(Flight Regulations).		
USARAK Regulation 420-11	(Engineering Fire and Emergency Services).		
Section III Referenced Forms			
Department of Labor Form CA-1	(Federal Employee's Notice of Traumatic Injury and Claim for Continuation of Pay/Compensation) is cited in paragraph 15-5.		
Department of Labor Form CA-2	(Notice of Occupational Disease and Claim for Compensation) is cited in paragraph 15-5.		
Department of Labor Form CA-6	(Official Superior's Report of Employee's Death) is cited in paragraph 15-5a(2).		
DA Form 285	(U.S. Army Accident Report) is cited in paragraphs 15-3 and 15-5a(1) and paragraph 15-8a.		
DA Form 285-AB-R	(U.S. Army Abbreviated Ground Accident Report) is cited in paragraph 15-3 and paragraphs 15-5b(2), 15-6, 15-7c, and 15-8a.		
DA Form 1118	(Certificate of Merit for Safety) is cited in paragraph 17-4b(2).		
DA Forms 1119	(Certificate of Achievement in Safety) is cited in paragraph 17-4.		
DA Form 1119-1	(Certificate of Achievement in Safety) is cited in paragraph 17-4.		
DA Form 2028the	(Recommended Changes to Publications and Blank Forms) is cited in		

DA Form 4283	(Facilities Engineering Work Request) is cited in paragraph 6-2d(3).		
DA Form 4753	(Notice No of Unsafe or Unhealthful Working Conditions) is cited in figure E-1.		
DA Form 4755	(Employee Report of Alleged Unsafe or Unhealthful Working Conditions) is cited in paragraph 6-3 and figure E-1.		
DA Form 4756	(Installation Hazard Abatement Plan) is cited in paragraph 6-2d(2).		
DA Form 7305-R	(Telephone Notification of Aviation Accident/Incident) is cited in paragraph J-1b.		
DA Form 7306-R	(Telephonic Notification of Ground Accident) is cited in paragraphs 15-5a(1), 15-6a and J-1b.		
DD Form 626	(Motor Vehicle Inspection) is cited in paragraph 14-5c.		
DD Form 836	(Dangerous Goods Shipping Paper/Declaration and Emergency Response Information of Hazardous Materials Transported by Government Vehicles/Containers/Vessels) is cited in paragraph 14-5c.		
DD Form 1141	(Record of Occupational Exposure to Ionizing Radiation) is cited in appendix F.		
DD Form 1952	(Dosimeter Application and Record of Occupational Radiation Exposure) is cited in appendix F.		
DD Form 2272	(DOD Occupational Safety and Health Protection Program (Poster)) is cited in paragraphs 6-3e, 7-1a(4), and 7-2c and figure E-1.		
DD Form 2521	(Hazard Chemical Warning Label (8 1/2 x 11 inches)) is cited in paragraph 3-5h(2).		
DD Form 2522	(Hazard Chemical Warning Label (4 x 6 inches)) is cited in paragraph 3-5h(2).		
NRC Form 3	(Notice to Employees) is cited in paragraph 8-15a and appendix F.		
OSHA Form 174	(MSDS Nonmandatory Form) is cited in paragraph 3-7b.		
OSHA Form 300	(Log of Work-Related Injuries and Illnesses) is cited in paragraph 16-3c.		
OSHA Form 300A	(Summary of Work-Related Injuries and Illnesses) is cited in paragraph 16-3c.		
USARAK Form 19	(Civilian Injury Inquiry) is cited in paragraph 15-8b.		
USARAK Form 479	(Confined Space Entry Permit) is cited in paragraph 5-3a(2) and figure 5-2.		
USARAK Form 873	(United States Army Alaska Certificate of Achievement) is cited in paragraph 17-4b(3) and 176b.		

Appendix B Sample Standing Operating Procedure Format for the Hazard Communication Program

APVR-XX Dat
Standing Operating Procedures
1. References:
a. 29 CFR 1910.1200.
b. Headquarters, Department of Army Letter 11-22-2.
c. Department of Defense 6050.5-W.
2. Purpose:
a. This SOP's purpose is to outline how the
b. The hazardous chemical inventory is filed in It will be reviewed and updated when a new chemical is introduced to the work center, or at least annually. A cope of the inventory will be provided to the local fire and emergency services.
c. MSDSs will be maintained for all hazardous chemicals used. MSDSs will be filed in an and will be accessible to all workers. MSDSs may be obtained from the installation/mission safety office. Each worker will be trained on the use of MSDSs and the supervisor will train each worker on how to work safety with each hazardous chemical in the worker.
d. Supervisors will develop emergency procedures that will enable assigned personnel to effective deal with leaks, spills, and exposures.
3. Scope: All personnel who are potentially exposed to hazardous chemicals will be trained in the area of labeling and use of MSDSs that describe all hazards, protective equipment required, and safet procedures for the chemicals they use. Hazardous chemicals are defined as chemicals whose present or use is a physical or health hazard. Every hazardous chemical container must be properly labeled, you have a container that is not labeled, contact your supervisor for assistance.
4. Applicability:
a. This SOP applies to all personnel. Newly assigned personnel must read this SOP within 30 days assignment and sign a certificate indicating their understanding of the hazard communication progran The certificate of understanding, along with proof of hazard communication training, will be filed in the individual's training record.

b. All assigned personnel must attend the hazard communication training and a record of the attendance

c. All personnel will familiarize themselves with the hazardous chemicals used and become aware of

will be maintained in their training record.

the hazards to which they may be exposed.

- 5. Responsibilities: The hazard communications standard was established to ensure that all hazardous chemicals are identified and labeled to prevent inadvertent harm to employees. The law and the DOD require that DOD civilian and military personnel comply with this standard.
- 6. The following is the list of Personal Protective Equipment (PPE) that is maintained by this activity, its location, and how it is used in this work area.
 - a. Gloves.

	Туре	Location	Procedure/Process
	(1)		
Ī	(2)		

b. Aprons.

	Туре	Location	Procedure/Process
	(1)		
ĺ	(2)		

c. Goggles.

	Туре	Location	Procedure/Process
((1)		
	(2)		

d. Full face shields.

Туре	Location	Procedure/Process
(1)		
(2)		

e. Emergency equipment (eyewash, deluge shower).

Type	Location	Procedure/Process
(1)		
(2)		

f. Other.

Type	Location	Procedure/Process
(1)		
(2)		

7. The following locations/areas require that PPE be worn.

Type of Protection Required	Location
(1)	
(2)	

8. The point of contact for this SOP is	8. Th	e point of contact for this SOF	⊇ is	
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SIGNATURE BLOCK OF COMMANDER/DIRECTOR

Appendix C Sample Respiratory Protection Program Standing Operating Procedure

NAME OF ORGANIZATION (e.g., Division/Branch/Office)

(Office File Symbol) SOP No.

Date

RESPIRATORY PROTECTION PROGRAM STANDING OPERATING PROCEDURES FOR RESPIRATOR USE

- 1. Purpose: The purpose of this SOP is to provide instruction for protecting personnel from inhalation of hazardous atmospheres and implement an effective respirator protection program. It also prescribes procedures and policy for selecting, using, maintaining, and storing respiratory protection equipment in a manner that will assure adequate protection for employees requiring to work in hazardous atmospheres.
- 2. Authority:
 - a. Title 29 CFR Part 1910.134, OSHA Respiratory Protection Program.
 - b. AR 11-34, The Army Respiratory Protection Program.
- 3. Points of contact to call concerning the respiratory protection program:
 - a. Industrial Hygiene Office, Industrial Hygienist, Preventive Medicine Department.
 - b. Occupational Health Office, Occupational Health Nurse, Preventive Medicine.
 - c. Safety Office, Installation Safety and Occupational Manager.
- 4. General policy: Respirators are not the preferred method of protection against hazardous atmospheres. Engineering controls or substitution of less hazardous materials is the preferred method of control over respirators. Respirators may only be used under the following conditions:
 - a. When no other method will adequately control the hazard.
 - b. During intermittent or nonroutine operations.
 - c. While waiting for engineering controls.
 - d. During emergencies.
- 5. Approval for use of respirators: All respirator usage must be approved by the Industrial Hygiene Office, or Installation Safety Office. One or both of these offices must evaluate the hazards to ensure no other means of protection is available and determine appropriate types of respirators.

Note (Important): To use a respirator you must know the contaminants to which you are exposed and their concentrations. If you have any doubts before using a respirator, consult the Industrial Hygienist listed above.

- 6. Medical Evaluations, and Respirator Fit Testing:
- a. All personnel who wear respirators must have a medical evaluation before using or being assigned a respirator and annually thereafter. Supervisors are responsible for contacting the occupational health

nurse, at the Occupational Health Office, to schedule medical examinations and medical clearance for respirator use.

- b. Personnel in this shop wear respirators that require a tight facepiece seal. They must be fit tested from the Industrial Hygiene Office. The test is required initially and annually thereafter. The test is required every 6 months for asbestos workers. Fit testing is required for all tight-fitting respirators, whether they are negative or positive pressure respirators.
- c. Personnel in this shop wear respirators that do not require a tight facepiece seal (they use loose fitting hoods). These respirators do not require an annual fit testing. Personnel still require annual medical surveillance and still required to receive a card stating the type of respirator they use.
- d. All personnel using respirators must have a current respirator-user card either carried by the employee or filed with the supervisor. The card is issued and signed by the Industrial Hygienist.
- 7. Training: Respirator wearers receive training during respirator fit-test sessions. However, they need a comprehensive, respirator-training session annually. The supervisor or the designated, unit, respiratory-protection specialist will present the class during a monthly safety meeting. The class will provide information specific to respirator use in this shop. Contact the industrial hygienist, safety office, or fire and emergency services (self-contained, breathing apparatus (SCBA) only) for help with the class.

8. Respirator Use:

- a. Every employee assigned a respirator is responsible for wearing that respirator when its use is necessary. It is the employee's responsibility to ensure understanding of the use and care of respiratory protective equipment. If you do not understand, ask questions for clarification!
- b. The supervisor will enforce the use of respirators when their use is necessary. If compliance is not obtained and civilian personnel are involved, the Civilian Personnel Operations Center, management employee relations can assist with appropriate actions to be taken.
- c. Only respirators approved by the National Institute for Occupational Safety and Health and/or the Mine Safety and Health Administration, bearing the agency's approval number, are acceptable for use.
- d. Employees in this shop wearing respirators requiring a tight facepiece seal must not have anything break that seal. They cannot have facial hair that interferes with the seal or the valves. They must have spectacle inserts for fullface respirators if corrective vision is required. If scars or other facial characteristics prevent a good seal, they must use a hood-type respirator under positive pressure or perform jobs not requiring the use of a respirator.
- e. Employees in this shop wearing respirators requiring a tight facepiece seal must perform a positive and negative fit check to ensure it is seated properly and leakage does not occur. The fit check does not constitute a fit test. It only assures that a fitted respirator is positioned properly on the face.
- f. Employees in this shop use negative-pressure respirators that filter gases and vapors from the air. They must be aware that some gases and vapors have poor, odor-warning properties that they will not be able to smell a leak at a safe level of exposure. Filtered cartridges must not be used for these chemicals. (carbon monoxide, isocyanates, etc.)
- g. Filter cartridges have a service life. When the cartridges reach their service life, they will no longer work properly and must not be used.
- (1) Change replaceable particulate filters when breathing becomes difficult. Efficiency of particulate filters actually increases when a dust load accumulates, however, breathing resistance eventually makes them too difficult to wear.

- (2) Change replaceable vapor cartridges when irritation is felt or you smell the odor of the chemical. Replace after 8 hours of use even if you do not feel or smell the chemical.
- (3) Change replaceable, combination filter cartridges (particulate and vapor cartridges) when either of the above situations occur. Change after 8 hours of use even if you do not feel or smell the chemical and the filter is not difficult to breathe through.

WARNING: Any air-purifying respirator, when properly selected and fitted, will significantly reduce, but will not completely eliminate, inhalation of airborne contaminants. When working in areas containing airborne asbestos fibers, the wearer will obtain greater protection from a continuous flow or positive pressure air supplied respirator.

WARNING: These air-purifying respirators will not supply oxygen. It must not be used in oxygen-deficient atmospheres (<19.5% oxygen by volume); in poorly ventilated areas, or enclosed spaces such as tanks or small rooms, for abrasive blasting or fire fighting, or for protection against contaminants excluded or not covered by the approval label.

WARNING: These air-purifying respirators must be used with the proper filter cartridges approved for ALL contaminants present. If you are unsure which cartridges to use, ask your supervisor or the industrial hygienist.

WARNING: Do not use these respirators if exposure limits are unknown or when it is below the odor threshold or any established warning level for the contaminant(s).

WARNING: Leave the work area immediately if any of the following occur:

- h. Difficulty breathing.
- i. Dizziness or other distress occurs.
- j. You can sense irritation or can taste or smell the contaminant.
- k. The respirator becomes damaged in any way.

WARNING: All respirators must be used according to the respirator's instructions, labels, and limitations.

WARNING: Tight-fitting, air-purifying respirators may not provide a satisfactory seal when certain facial characteristics are present such as beards and/or side burns that prevent direct contact between the skin and the sealing surface of the respirator facepiece. Do not use these respirators if such conditions exist.

WARNING: Do not use for protection against the following list of contaminants regardless of concentration or length of exposure. This is far from a complete list:

Acrolein	Nitro compounds
Aniline	Nitrogen oxides
Arsine	Nitroglycerin
Bromine	Nitromethane
Carbon Monoxide	Ozone
Diisocyanates	Phosgene
Dimethyl sulfate	Phosphine
Hydrogen cyanide	Phosphorus trichloride
Hydrogen selenide	Stibine
Methanol	Sulfur chloride
Methyl bromide	Urethane or other diisocyanate
Methyl chloride	containing paint
Nickel carbonyl	Vinyl chloride
Nitric acid	

FAILURE TO FOLLOW THE ABOVE WARNINGS CAN RESULT IN SERIOUS PERSONAL INJURY OR DEATH.

- I. Employees in this shop may be required to wear their SCBAs for situations immediately dangerous to life and health. They must be familiar with the shop SOP on emergency use.
- m. Employees in this shop use compressed air as the source of air for supplied-air breathing apparatus. Compressed air used for human consumption requires the use of a high-temperature alarm and/or carbon monoxide alarm. It also requires grade D breathing air. This means it must meet certain standards. The compressor air must be checked periodically to make sure filters and alarms are working properly. The compressor cannot be used in situations where chemical concentrations are immediately dangerous to life or health unless the respirator also is equipped with an SCBA-escape unit attached.
- n. Employees in this shop use an air pump as the source of supplied air for breathing apparatus. Bullard makes one brand of this type of pump. Since it is not a compressor, the alarms are not necessary to ensure oil breakdown products do not reach the employee. However, it is very important that the breathing air be clean. This means placement of the intake air for the pump must be placed in a clean location. Do not locate the pump near any source of vehicle exhaust or any other contamination. The pump may be located no more than 300 feet from the respirator. These pumps are not allowed for use in situations where chemical concentrations may reach levels immediately dangerous to life or health.

9. Inspection procedures:

- a. Frequency of inspections.
 - (1) The respirators used in this shop must be inspected before and after each use.
- (2) The respirators used in this shop for emergencies must be inspected monthly and after each use. All inspections must be annotated and be available for review.
 - b. The negative-pressure, air-purifying respirators used in this shop must be inspected as follows:
- (1) Examine the exhalation valve for any foreign material including dirt or human hair, cracks or tears in the valve, or improperly installed or missing valves.

- (2) Examine the filter cartridges or canisters for correctness according to the hazard to ensure proper selection of filter and other problems such as cracks or expired service life. Make sure the filter cartridges or canisters are not used to protect against chemicals with poor warning properties.
 - c. The supplied-air respirators used in this shop must be inspected as follows:
 - (1) Examine the supplied-air system for condition of the supply lines and hoses.
 - (2) Examine regulators, valves, or other air-flow devices for correct operation and condition.
 - d. The SCBAs must be inspected as follows:
 - (1) Make sure the cylinder is fully charged.
 - (2) Make sure the regulators and alarms are working properly.
 - e. The tight-fitting facepiece respirators in this shop must be inspected as follows:
 - (1) Examine the facepiece for dirt, cracks, tears, or distortion.
- (2) Make sure straps and harnesses do not have breaks and retain their elasticity. Make sure the clips, buckles, and attachments are sound.
 - (3) In full facepiece respirators, check lenses for cracks, breaks, or excessive scratches.
 - f. The hoods and helmets in this shop must be inspected as follows:
 - (1) Check the hood for rips or tears.
 - (2) Check protective head gear for general condition and to make sure there are no cracks.
 - (3) Examine the faceshield for cracks or excessive scratches.

10. Cleaning procedures:

- a. All respiratory protective equipment must be cleaned and sanitized after each use. Follow the manufacturer's instructions for cleaning procedures.
- (1) The filter cartridges or canister and/or hoses are removed before cleaning. Hoses also need to be washed.
- (2) The facepiece (or hood), elastic straps, inhalation valves, exhalation valve, exhalation valve seat, exhalation valve guard, and inhalation connectors should be washed in a 120-140 degree Fahrenheit cleaner-sanitizer solution or with a cleaner supplied by the manufacturer. Rinsed thoroughly in 120-140 degree Fahrenheit water and allowed to air dry in a noncontaminated atmosphere. The exhalation valve system in the facepiece must be inspected to ensure it is free of foreign material and not damaged or distorted.

11. Storage:

a. Respirators must be stored away from heat, direct sunlight, extreme cold, or any other condition that will effect the facepiece and/or straps. They must be stored so as to not crush or change the shape of the facepiece or valves.

also perform work-area surveillance.

b. Respirators must be stored away from chemicals. In the case of air-purifying respirators, it is very important to store them away from the chemical vapor for which they are used to protect against.							
c. Em	ergency respirat	ors are stored in	clearly mark	ed containers	. They are e	asily accessible.	i.
12.	Repair:	Repair	can	only	be	performed	by
This person has received training in respirator maintenance. Replacement parts will be of the same brand as the respirator. Respirator parts cannot be interchanged between brands.							
13. Work-area surveillance and evaluation of program effectiveness:							
a. Th	ne shop super	visor, safety re	epresentative,	, or designa	ited respira	tory protection	specialist

b. The shop supervisor, safety representative, or designated respiratory protection specialist determines the effectiveness of the program. The Industrial Hygiene Office and Safety Office can provide assistance.

__ performs work-area surveillance. The industrial hygienist and Safety Office

Appendix D Respiratory Protection Program Inspection Guide

- 1. Are engineering controls used where feasible for control of atmospheric contamination?
- 2. Does the employer provide respiratory equipment, when necessary?
- 3. Does the employee use the respiratory protection according to instructions and training received?
- 4. Are there written operating procedures governing the selection and use of the respirators for the particular hazard?
- 5. Are the respirators selected appropriate for the particular hazard?
- 6. Does the employee receive training in the use of the respirator and instruction as to its limitations?
- 7. Are respirators assigned on an individual basis, when practicable?
- 8. Are respirators cleaned and disinfected on a regular basis? (When used by more than one person, after each use; when individually assigned, after each day's use.)
- 9. Are respirators in a convenient, clean, and sanitary location?
- 10. Are respirators inspected during cleaning and are deteriorated parts replaced?
- 11. Are respirators that are used for emergencies inspected on a monthly basis and after each use?
- 12. Is appropriate surveillance of the work area conducted?
- 13. Is a record of the level of exposure to an employee maintained?
- 14. Is the continued effectiveness of the respiratory protection program determined through regular evaluation?
- 15. Before employees are assigned a task that requires wearing a respirator, do you determine whether or not the employee can perform the work while using the equipment?
- 16. Is the medical status of all employees who wear respirators periodically checked?
- 17. Did the United States Department of Health, Education, and Welfare (National Institute for Occupational Safety and Health), United States Department of the Interior (Bureau of Mines), Mining Enforcement and Safety Administration, or the Mining Safety and Health Administration approve all respirators?
- 18. Is the respirator selected according to the guidance of the American National Standard Practices for Respiratory Protection?
- 19. When oxygen is used, does it meet the requirements of the United States Pharmacopoeia for medical or breathing oxygen?
- 20. Does breathing air meet the requirements of the specifications for grade D breathing air?
- 21. Are steps taken to ensure that compressed oxygen is not used where compressed air has once been used?

- 22. Are steps taken to see that oxygen is not used for air-line respirators?
- 23. Is the compressor used for supplying air, equipped with necessary safety and standby devices?
- 24. Is the compressor designed, constructed, and used so that its exhaust does not reenter the system?
- 25. Does the compressor have in-line, air-purifying devices?
- 26. Is the receiver of sufficient capacity to allow the user to escape should the compressor fail?
- 27. Are alarms present in the system to indicate compressor failure and overheating?
- 28. If the compressor is of the oil-lubricated type, does it have a high-temperature or carbon monoxide alarm or both?
- 29. If only a high-temperature alarm is installed, are tests performed periodically to ensure that the carbon monoxide level is less than 20 parts per million?
- 30. Do you ensure that the air-line coupling is incompatible with outlets from other gas systems?
- 31. Are breathing and gas containers properly marked?
- 32. When respirators are individually assigned, are they durably marked to identify the user?
- 33. Is a record maintained that shows the issue date of the respective respirator?
- 34. Are personnel familiar with the written procedures that cover the use of respirators in emergencies?
- 35. Are steps taken to ensure that there is at least one additional person present when someone wearing a respirator could be overcome by a toxic or oxygen-deficient atmosphere?
- 36. Is communication (visual, voice, or signal line) maintained between all individuals present in toxic or oxygen-deficient atmosphere?
- 37. Do emergency plans exist and is proper rescue equipment present?
- 38. Are respirators being used in atmospheres immediately hazardous to life or health?
- 39. When personnel are using air-line respirators in atmospheres immediately hazardous to life or health are they equipped with suitable, emergency, 5-minute, air-cylinder provisions?
- 40. Are frequent random inspections performed to ensure that all respirators are properly selected, used, cleaned, and maintained?
- 41. Does the training of employees who use respirators include proper fitting, testing face-to-facepiece seal, wearing in normal air for a familiarity period, and wearing in a test atmosphere?
- 42. Are employees instructed not to wear temple pieces on glasses, beards, sideburns, or skull caps that might project under the respirator? (Reason: These conditions will prevent the formation of a good seal between respirator and face.)
- 43. Does the employee check the respirator for proper fit after putting it on?
- 44. Are provisions made for people who wear corrective glasses and use a respirator?

- 45. Are employees instructed not to wear contact lenses with a respirator?
- 46. Are SCBAs inspected monthly?
- 47. Is a record maintained of inspection dates and findings for emergency use?
- 48. Is replacement or repair of respirators done only by experienced people with designated parts?
- 49. Are reducing or admission valves or regulators adjusted or repaired by the manufacturer or a trained technician?
- 50. Are employees instructed in the correct way to store respirators?
- 51. Is the location of all respirators used in emergencies clearly marked?
- 52. Are checks made to ensure that employees are not storing respirators in toolboxes or lockers without first placing them in the proper container?
- 53. Are respirators stored or packed so that the facepiece and exhalation valve rest in a normal position?
- 54. Does the person who issues gas masks ensure that they are properly labeled and color-coded?
- 55. Does the person who issues gas masks ensure that the label and color code are maintained until the canisters have completely served their purposes?
- 56. Is the following phrase printed in bold letters on each canister? Canister for: ___(Name of atmospheric contaminant)
- 57. Does the following wording appear beneath the appropriate phrase on the canister? For respiratory protection in atmospheres containing more than ___(percentage)___ by volume of ___(name of atmospheric contaminant)___
- 58. Do canisters having a special, high-efficiency filter for protection against radionuclides and other highly toxic particulates have a label that states the type and degree of protection afforded by the filter?
- 59. Is the label affixed to the neck end of the gray strip that is around and near the top of the canister?
- 60. Does each mask canister have a label warning that the gas mask should be used only in atmospheres containing sufficient oxygen to support life (at least 19.5 percent by volume)?
- 61. Is each gas mask canister painted a distinctive color or combination of colors?
- 62. Are employees and visitors who must enter areas where respiratory equipment is required provided respiratory protection?
- 63. Are work site SOPs developed and posted in the general area?
- 64. Is respirator protection training conducted for all employees and supervisors?
- 65. Does the respirator training include as a minimum:
 - a. Nature and degree of respiratory hazards.
 - b. Respirator selection, based on the hazard and respirator capabilities and limitations.

- c. Donning procedures and fit testing.
- d. Care of the respirator, e.g., need for cleaning, maintenance, storage, and/or replacement.
- 66. Is respirator training properly documented including the type and model of respirator for which the individual has been trained and fit-tested? Are records made a part of the command training records?
- 67. Are medical evaluations conducted to ensure employees required to wear respiratory protection equipment are physically able to perform their assigned tasks while using the equipment?
- 68. Are medical evaluations conducted at the recommended frequency?
 - a. Under age 35, every 5 years.
 - b. Between age 35-45, every 2 years.
 - c. Over age 45, yearly.
- 69. Do medical evaluation include a medical history and take into account medical or physical conditions that would disqualify the individual?
- 70. Do these medical evaluations include consideration of the
 - a. Type of respiratory protection to be used.
 - b. Level of effort required to perform the job.
 - c. Extent of usage.
 - d. Environment conditions
 - e. Special responsibilities of the individual (firefighter, rescue workers, etc.)?
- 71. Does the physician certify the examinee for a category of approved respirator use, i.e., no restrictions or no use of respirator under any circumstances?
- 72. Is the respirator fit-testing documented, including the type of respirator, brand name and model, method of test and test results, test date, and the name of the instructor/tester?
- 73. Is routine monitoring of breathing-air quality part of the command's workplace monitoring plan?
- 74. If used for breathing-air purposes, are oil-lubricated compressors checked at least every 3 months?
- 75. If an oil-lubricated compressor is used, does it have a high-temperature or carbon monoxide alarm, or both?

Appendix E Employee Safety and Health Record

Use the employee safety and health record examples shown in figure E-1 as the basis for your unit's employee safety and health records.

EMPLOYEE SAFETY AND HEALTH RECORD					
1. Name (Last, First, Middle Initial)	2. Check One:	3. Organization:			
	Military				
	Civilian				
4. Occupational Series or Primary Military Occupational Specialty:	5. Duty Title:				
6. Hazards Associated with Present Duties:					
7. Occupational Health Medical Examination:					
I. MANDATORY ITEMS (To be briefed to all person					
1. Hazards of the assigned job or tasks and safety	15. Location and required review of appropriate				
procedures to be followed.	safety bulletin boards, visual aids, and DD Form 2272.				
2. Work-area hazards including physical, physio-		16. Hazards associated with surrounding local			
logical, and chemical. Reason for specific medical	area if operational activities require off-installation				
examination.	travel.				
3. Occupational safety and health standards and guidance that apply to job and workplace.	17. Risk Manag	ement per chapter 2.			
4. PPE required, how, when, and where to use it	18 Hazard Com	nmunications Program per			
per chapter 11.	chapter 3.	inianicalione i regiani per			
5. Emergency procedures that apply to their job		Protection Program (as applicable)			
and workplace including building evacuation and	per chapter 4.	- , , , ,			
fire-reporting procedures, and location of					
emergency equipment, fire alarms, and					
extinguishers.	20 Confined Cr	page Entry Drogram (co			
6. Immediate reporting of unsafe/unhealthful equipment, conditions, or procedures to your supervisor.	20. Confined Space Entry Program (as applicable) per chapter 5.				
7. Location, submission procedures, and purpose	21. Lockout/Tagout Program (as applicable) per				
of DA Form 4755.	chapter 13.				
8. Accident Report Procedures and who is the	22. Hearing Conservation (as applicable) DA				
Section Safety Representative.	Pamphlet 40-50				
9. Emergency telephone numbers.	23. Sight Conse 1910.133.	ervation (as applicable) 29 CFR			
10. Location of medical facilities and procedures		Pathogens (as applicable)			
for obtaining treatment for on-the-job injury	chapter 18.				
11. Requirements for documentation and notification of on-the-job injury or illness.	25. Jewelry Safe	ety			
12. Individual responsibilities for ensuring own	26. Other.				
safety and personal rights.		Prevention Program.			
		Safety Training.			
40.0	c. First Aid.				
13. Purpose and function of DA Form 4753.					
14. Required use of safety belts and motorcycle					
safety.	1				

Figure E-1. Employee safety and health record example

II. PERSONAL PROT	ECTION ISS	SUED	III. PERSONAL PROTECTION PROVIDED IN WORK AREA			
		Date	Initials			Loc atio n
1. Head Protection				1. Head Protection		
2. Eye Protection				2. Eye Protection		
3. Arm/Hand Protectio	n			3. Arm/Hand Protection		
4. Foot Protection				4. Foot Protection		
5. Hearing Protection				5. Hearing Protection		
6. Respiratory Protecti	on			6. Respiratory Protect	ion	
7. Other (List)				7. Other (List)		
IV. DATE SPECIALIZ						
SCBA	ry:	Pencil Entry:		Other		
V. RECORD OF OSH					0.00.4.7.1.0.5	
DATE	INITIAL	ANNUAL		SIGNATURE OF SUPERVISOR	SIGNATURE EMPLOYE	
		R	EMARKS			

Appendix F Radiation Safety Program Checklist

AR 11-9, AR 40-5, and USARAK Regulation 385-1, chapter 8 provide further guidance for working with radiation. In addition, use the guide below when managing the risks associated with ionizing and nonionizing radiation.

- 1. Administration and Management.
 - a. Are appointments of organization-level RSOs in writing and signed by the commander?
 - b. Have the appointed RSOs received the required training with certificates on file?
- c. Has a formal, written ionizing and nonionizing radiation safety program been established with an SOP? Has a copy been forwarded to the installation/mission RSO?
 - d. Are workers informed of radiation hazards in their work areas? (Trained and documented annually.)
- e. Is annual training provided for personnel who handle or use mortar and artillery fire control equipment, rifle sights, pistol sights, and muzzle reference sensors with radioluminescent lamps, watches, compasses, etc., which contain tritium or other radioactive material? (Verify lesson/training plan(s) and record(s) of training.) Annual training should include emergency response procedures to follow when breakage or damage to these items occur.
- 2. If required, are personal protective clothing and equipment available for workers?
- 3. Are individually controlled items properly tracked? Records should show who has them and if they are used by personnel who have been trained to standards.
- 4. Are copies of current physical ionizing and nonionizing radiation inventories furnished to the IRSO by the responsible organization by 30 September of each year?
- 5. Does the LRSO have access to testing instruments suitable for detection and measurements of alpha, beta, and gamma levels?
- 6. Are active radiation, detection, indication, and computation (RADIAC) meters that are used for health and safety calibrated intervals per TB 750-25 and/or TB 43-180?
- 7. Is equipment containing radioactive material monitored within 3 hours after receipt during normal duty hours or within 18 hours if received after normal duty hours? (Verify surveys should be recorded showing dates, times, and places.)
- 8. Are vehicles and military aircraft that transport radioactive material monitored? (Must be able to verify.)
- 9. Are personnel who are responsible for loading, unloading, and transporting radioactive materials and other hazardous materials, trained per Directorate of Logistics requirements? (Verify documentation.)
- 10. If required, is the film badge/thermoluminescent dosimeter monitoring program in compliance?
- 11. Are current exposure records (DD Form 1141 (Record of Occupational Exposure to Ionizing Radiation)) and dosimeter records (DD Form 1952 (Dosimeter Application and Record of Occupational Radiation)) properly filed, on hand, and in personnel health and medical records?

- 12. Does the installation/mission RSO brief workers on the results of the monthly or quarterly dosimeter reports after the workers are informed of current exposure level results and record the date of this brief?
- 13. Is the controlled storage area for contaminated or suspected contaminated equipment in compliance? Is the area secure, access restricted and posted?
- 14. Does the local fire and emergency services maintain records of locations where radioactive materials are stored on installation?
- 15. Are surveys conducted where radioactive materials are stored or used on an annual basis? Are records on file for 3 years?
- 16. Are quarterly surveys conducted of direct support or general support maintenance and storage areas? Are records on file for 3 years? Is a copy of each quarterly survey sent to the IRSO?
- 17. When a radiation incident occurs does the installation/mission RSO know the procedures to follow? Verify emergency procedures in unit SOP.
- 18. Are the radiation storage areas properly posted with:
 - a. NRC Form 3.
 - b. "Caution Radioactive Materials" or other appropriate sign.
- c. USARAK Poster 385-21 (No Eating, Drinking, Smoking, Chewing or Applying Cosmetics in This Area).
 - d. USARAK Poster 385-22 (Radioactive Material Emergency Contacts).
 - e. Copy of Public Law 93-438 (Energy Reorganization Act of 1974).
 - f. When applicable, a statement denoting location of NRC license and 10 CFR 19, 20, and 21.
- 19. Does the organization RSO or NBC Officer/NCO have a continuity book containing the following:
- a. Appointment orders for battalion and separate companies at brigade level, companies at battalion level, and company level orders.
- b. Class/school certificate(s) (original or copy) for battalion and separate companies at brigade level; companies at battalion level or class training requests.
- c. Unit-level, radiation-safety program SOP. Brigade radiation safety program SOP can be written for implementation down to company level.
- d. Copy of annual inventory including unit, serial number of unit, unit identification code, Department of Defense Damage Assessment Center, type of equipment, serial number of radiological source, activity, date of last wipe test, and storage location (i.e., Headquarters and Headquarters Company, 1-501 Infantry Battalion, M43A1, CAD, isotope/AM-241, uCi250).
- e. Copy of annual nonionizing inventory including unit, nomenclature, national stock number, model number, quantity on hand, maximum average power, type antenna, and antenna gain.
 - f. Copy of wipe tests submitted with laboratory analysis results attached.

- g. Copy of installation/mission and unit-level radiation safety committee meeting minutes.
- h. Unit commander's review page.

Appendix G

Inspection Guide for Temporary Storage of Ammunition and Explosives on Training Ranges in Field Ammunition Supply Points

Note: Commanders of units with an ammunition mission will establish a unit explosives safety program to implement AR 385-64 and DA Pamphlet 385-64. Munitions and/or explosives will be handled only by trained personnel who understand the hazards and risks involved in the operation (DA Pamphlet 385-64, para 2--5).

- 1. Place ammunition on steel dunnage where practicable but not less than 3 inches of dunnage should be used. Fire-resistant, waterproof, overhead covers should be provided for all ammunition (DA Pamphlet 385-64, para 13-3(c)).
- 2. Separate and store ammunition by the storage compatibility mixing chart listed in DA Pamphlet 385-64, table 4-3.
- 3. Separate by lot number if more than one lot is being utilized.
- 4. Maintain quantity distance as outlined in DA Pamphlet 385-64, chapter 5.
- 5. Retain ammunition in original container until ready to fire (DA Pamphlet 385-64, para 2-9(a)).
- 6. Maintain proper security and communications at all times.
- 7. Post area with USARAK Poster 420-5 (No Smoking) (DA Pamphlet 385-64, para 3-2(g)).
- 8. A minimum of two fire extinguishers suitable for the hazards involved will be available for immediate use when explosives are being handled (DA Pamphlet 385-64, para 3-8(a)).
- 9. Arms, ammunition, and explosives deployed in the field for training will be secured at all times (AR 190-11, para 2-5).
- 10. Access to the ammunition transfer point/field storage until will be limited to the least practicable number of people (AR 190-11, para 4-19).
- 11. Park extraneous vehicles out of the general storage site area (DA Pamphlet 385-64, para 3-7(i)).
- 12. Park fuel trucks and store flammables at the appropriate distance per with DA Pamphlet 385-64, paragraph 3-7(g).
- 13. Ammunition and explosive accidents shall be reported and investigated per AR 385-40. Malfunctions must be reported per AR 75-1.
- 14. Post appropriate fire/chemical hazard symbols correctly (DA Pamphlet 385-64, para 3-15).
- 15. Waste materials within the storage area will be placed in approved, marked containers (DA Pamphlet 385-64, para 2-6).
- 16. Train all operating personnel and firefighting forces involved with explosives in the precautions to be taken and how to fight fires (DA Pamphlet 385-64, para 3-3).

Appendix H Personal Protective Equipment (PPE) Checklist

- 1. Do supervisors provide PPE and train all personnel on use and maintenance?
- 2. Do supervisors ensure issued PPE is regularly maintained and properly stored?
- 3. Are the following personnel wearing safety eye wear?
 - a. Welders/metal workers.
 - b. Painters/chippers/grinders.
 - c. Fuel handlers.
 - d. Maintenance workers.
 - e. Carpenters/woodworkers.
 - f. Tactical vehicle/heavy equipment operators.
 - g. Pest controllers.
 - h. Electricians.
 - i. Mechanics/repairmen.
 - j. Warehousemen.
 - k. Solvent users.
- 4. Are workers requiring corrective safety lenses scheduled for examination with medical clinic?
- 5. Do the following personnel wear safety footwear?
 - a. Electrical workers.
 - b. Mechanics (all).
 - c. Carpenters.
 - d. Heavy-equipment operators.
 - e. Warehouse workers.
- 6. Does all PPE used meet National Institute for Occupational Safety and Health, ANSI, and/or Mine Safety and Health Administration standards?
- 7. Is there an established written policy for requisitioning PPE?
- 8. Are workplaces evaluated by industrial hygiene or safety personnel to determine required PPE at the request of commander/supervisor?

- 9. Is the use of issued PPE by personnel enforced by the supervisor and written policies support this requirement?
- 10. Is PPE use a requirement in job descriptions and listed as a condition of employment?
- 11. Is PPE maintained and stored in a clean and serviceable condition?
- 12. Where feasible, are hazards eliminated through engineering or management controls before PPE is issued?
- 13. Are personnel advised of job hazards that require PPE and their limitations?
- 14. Are training records maintained by supervisor?
- 15. Do eye protectors conform to ANSI Z87.1-1989 if purchased after 5 July 1994 or ANSI Z87.1-1968 if purchased before 5 July 1994, and the following performance standards:
 - a. Do they provide adequate protection against the particular hazards of the workplace?
 - b. Do they fit properly and cause minimal discomfort?
 - c. Are they durable, easily cleaned, and labeled?
- 16. Are contact lenses worn in conjunction with safety goggles or face masks in designated, eye-hazard operations?
- 17. Are unvented safety goggles used in high-dust and chemical-vapor operations?
- 18. Are only plastic frames used in electrical/electronic and flammable/explosive operations?
- 19. Are face shields used where the entire face needs protection from metal sparks, chemical splash, etc.?
- 20. Are welding shield headgear kept clean, correct filter lenses installed, and cover plates changed/maintained?
- 21. Does head protection conform to ANSI standards and the following performance requirements:
 - a. Constructed of lightweight, nonconductive, fire- and water-resistant material.
- b. Issued to and used by personnel in designated job descriptions and operations to protect from electrical, bump, and falling object hazards.
 - c. Meet ANSI Z89.1, class A and Z89.2, class B standards when used in electrical hazard areas.
- d. Hat/cap suspension units showing evidence of cracks, tears, frays, or other signs of deterioration are replaced.
 - e. Hats/caps with cracks of any size are replaced.
- 22. Does foot protection conform to ANSI Z41.1 standards and the following performance requirements:
- a. Issued to and used by personnel in designated job descriptions and operations when working in areas where there is danger of foot injuries due to falling or rolling objects, or objects piercing the sole?

- b. Requirements for nonconductive, nonsparking, or nonskid soles are considered when selecting foot protection for use in electrical, chemical, or slip-hazard sites?
- c. Conductive shoes for explosive items are cleaned and tested annually and personnel are not permitted to wear wool, silk, or rayon socks/hose with shoes?
- 23. Is appropriate apparel worn for protection from heat, chemicals, or similar hazards, specifically:
- a. Boots of rubber, vinyl, plastic, or other synthetic material are provided for personnel working in wet processes?
 - b. Rubber or synthetic coveralls/aprons provided for protection against corrosives?
 - c. Specific, flame-retardant clothing provided for protection in hot-work operations such as welding?
- d. Rubber or synthetic gloves provided for protection against the harmful effects of solvents, corrosives, and other workplace chemicals?
- e. Gloves are intact and checked/tested before use? Electricians' gloves must be nonconductive and tested every 3 months.
- 24. Are protective creams and lotions selected in conjunction with the bioenvironmental engineer for use to protect skin injuries caused by harmful substances?
- 25. Is light-reflecting material worn on clothing for better visibility during roadwork and after dark?
- 26. Are insulating blankets and gloves stored in protective containers away for direct sunlight and sources of heat?
- 27. Are approved safety belts, harnesses, and climbing equipment with lifelines available and used for:
 - a. Work in high places where an employee can fall 6 feet or more?
 - b. Confined spaces?
- 28. Harnesses, belts, and lifelines are rated with 5000-pound breaking strength.

Appendix I Operations Requiring Personal Protective Equipment

I-1. Receiving and loading operations.
a. Mandatory PPE:
(1) Safety shoes.
(2) Leather gloves.
b. Conditionally mandatory PPE:
(1) Hard hat (in designated hard-hat areas and when in the proximity of overhead operations).
(2) Safety glasses (in designated eye-hazard areas, removing, banding, dusty conditions).
(3) Hearing protection (when operating or working near labeled, noise-hazard equipment).
I-2. Warehousing operations. Same requirements as paragraph I-1.
I-3. Heavy equipment and forklift operations.
a. Mandatory PPE:
(1) Safety shoes.
(2) Hard hats.
(3) Safety glasses.
b. Conditionally mandatory PPE: Hearing protection when operating labeled, noise-hazard equipment.
I-4. Hand-held/stationary power tools.
a. Mandatory PPE:
(1) Safety shoes.
(2) Safety glasses/shield.
b. Conditionally mandatory PPE:
(1) Hard hats (in designated areas or in proximity of overhead operations).
(2) Hearing protection (when operating labeled, noise-hazard equipment).
I-5. Solvent cleaning/painting (spray and brush) operations. Conditionally mandatory PPE:

b. Hearing protection (in designated, noise-hazard areas).

the safety office or preventive medicine).

a. Respirator (when spraying/brushing solvent base paints in unventilated shops as recommended by

- c. Hard hats (in designated hard-hat areas or when working in proximity of overhead operations).
- d. Face shield (when there is potential for splashing or spraying).
- e. Gloves, solvent resistant (when handling liquids).
- f. Apron compatible to solvent.
- I-6. Grinding operations.
- a. Mandatory PPE: Safety glasses with side protection, goggles, or face shields for severe exposure with primary eye protection.
- b. Conditionally mandatory PPE: Hearing protection (in designated, noise-hazard areas and when working with labeled, noise-hazard equipment).
- I-7. Battery (acid) charging/handling operations. Mandatory PPE:
 - a. Face shield.
 - b. Apron, rubber.
 - c. Gloves, rubber.
 - d. Rubber safety shoes or rubber overshoes over safety shoes.

Note: Emergency eye and body wash must be within 10 seconds or 100 feet of all battery handling operations.

- **I-8.** Welding, brazing, and gas-cutting operations. Mandatory PPE:
 - a. Apron, leather.
 - b. Leggings, leather.
 - c. Sleeves, leather.
 - d. Gloves, leather.
 - e. Goggles/helmet, welders impact resistant with shaded lens.
 - f. Safety shoes.
 - g. Respirator with fume filter.
- **I-9.** Nonleaking hazardous material and waste operations.
 - a. Mandatory PPE:
 - (1) Gloves, leather (chemical resistant if containers are in poor condition).
 - (2) Safety shoes.
 - (3) Coveralls.

- b. Conditionally mandatory PPE:
 - (1) Goggles/face shield when handling corrosives.
 - (2) Hard hat (in designated hard-hat areas or when working in proximity of overhead operations).
 - (3) Hearing protection (when working in proximity of labeled, noise-hazard equipment).
- **I-10.** Designated permit-required confined space operations.
 - a. Mandatory PPE:
 - (1) Safety harness and lifeline.
 - (2) Hard hat.
 - b. Conditionally mandatory PPE:
 - (1) Respiratory protection (determined by the safety office or preventive medicine).
 - (2) Eye protection (in dust, mist, and vapor-contaminated atmospheres).
- I-11. Asbestos handling/removal operations. Check with the safety office and/or preventive medicine.
- **I-12.** Hazardous material spill response/containment/cleanup operations.
- a. Mandatory PPE (known chemical): Level B consists of SCBA with full-face mask, chemical resistant outerwear, gloves, foot cover, and gloves.
- b. Mandatory PPE (unknown chemical): Level A consists of SCBA and fully encapsulating chemical resistant suit.

Note: Personnel will participate in the operation only if they are a designated spill team member, have received mandatory OSHA certified training, and are certified.

- **I-13.** Meat cutting operations.
 - a. Eye/face protection when operating machinery.
 - b. Gloves or knife-protection bandage.
 - c. Shoes and rubber overshoes.
 - d. Cold-climate clothing.
 - e. Apron.
- **I-14.** General ground maintenance workers.
 - a. Hearing protection.
 - b. Foot protection.
 - c. Hand protection.

d. Head protection.

e. Coveralls.

I-15. Vehicle maintenance workers.

a. Shoes.

b. Gloves, as needed.
c. Coveralls.
d. Eye protection when working under vehicles.

I-16. Other shop members.
a. Ear protection.
b. Eye protection.
c. Face protection.
d. Foot protection.

Appendix J Notification Procedures for Army Accidents or Incidents

J-1. On-duty accidents (military or civilian)

- a. Class A and B Army accident (ground or aviation) or (class C aviation accident):
- (1) Person(s) involved in or aware of any class A or B Army accident (ground or aviation) or class C aviation accident will immediately report it, by the fastest means possible, to the commander or supervisor directly responsible for the operation, material, or person(s) involved. If the accident involves a bargaining unit employee(s) or involves property damage in the workplace of bargaining unit employees, the supervisor will notify the union of the type of accident (i.e., fall, cut, etc.) and where the accident occurred (i.e., building number, site description, etc.).
- (2) The commander/supervisor who first becomes aware of any class A or B Army accident (ground or aviation) or class C (aviation accident) will secure the accident site, and if not the responsible commander, notify the immediate commander or supervisor responsible for personnel involved.
- (3) The commander responsible for the operation, material, or person(s) involved will notify their existing chain-of-command and the following:
 - (a) USARAK command center (during duty or nonduty hours, 384-6666).
- (b) United States Army Safety Center defense switching network, (312) 558-2660/4273/3410 or commercial: (205) 558-2660/4273/3410.
- (c) USARAK mission safety office FRA during duty hours, 384-2041/2329/2310 or after-duty hours, call the USARAK Command Center at Fort Richardson, 384-6666. Mission safety office FWA 353-7412 or after-duty Emergency Operations Center (EOC) at 353-6666.
- (d) (Aviation Accidents Only) USARAK aviation safety officer during duty hours, 353-7098 or after-duty hours, call the emergency operations center at Fort Wainwright, 353-6666.
- (e) Installation safety office during duty hours call Fort Richardson, 384-2382/2383 or after-duty hours, call the command operations center at Fort Richardson, 384-6666 or Fort Wainwright, 353-7078/6473 or after-duty hours, call the EOC at Fort Wainwright, 353-6666.
- (f) Union Offices (Only if Union Employees are involved): Fort Richardson call 384-0683 or fax 384-7372; Fort Wainwright call 353-7299 or fax 356-3101.
- b. Be prepared to give the information required by DA Form 7306-R or DA Form 7305-R (Worksheets for Telephonic Notification of Ground or Aviation Accident/Incident) as appropriate in AR 385-40. Do not delay the call for lack of information. Call immediately with as much information as possible and call back as further information becomes available.
- c. For class C and D Army accidents (ground only); person(s) involved in or aware of a class C or D Army accident will immediately report it, by the fastest means possible, to the commander/supervisor directly responsible for the operation, material, or person(s) involved and the responsible installation/mission safety office.
- d. For class D aviation accident or class E and F aviation incidents, person(s) involved in or aware of a class D aviation accident or class E or F aviation incident will immediately report it, by the fastest means possible, to the commander/supervisor directly responsible for the operation, material, or person(s) involved, the USARAK aviation safety officer and the responsible installation safety office.

J-2. Off-duty accidents (military only)

Notification is the same in paragraph J-1.

Glossary

Section I Abbreviations

AFGE	American Federation of Government Employees
AGAR	abbreviated ground accident report
ANSI	American National Standards Institute
AR	Army regulation
ASO	aviation safety officer
CFR	Code of Federal Regulations
CTA	common table of allowances
DA	Department of the Army
DD	Defense Department
DOD	Department of Defense
DODI	Department of Defense Instruction
FM	field manual
IRSO	installation radiation safety officer
LRSO	local radiation safety officer
METT-T	mission, enemy, terrain, troops, and time available
MSDS	material safety data sheet
NCO	noncommissioned officer
NRC	Nuclear Regulatory Commission
OSHA	Occupational Safety and Health Administration
POV	privately owned vehicle
PPE	personal protective equipment
RADIAC	radiation, detection, indication, and computation
SCBA	self-contained, breathing apparatus
SOP	standing operating procedure
TB	technical bulletin

USARPAC......United States Army, Pacific Command

Section II

Special Terms

Affected employees

Personnel whose job requires the operation or use of machinery and/or equipment on which servicing or maintenance will require lockout/tagout. These employees will be instructed in the purpose and use of lockout/tagout procedures during initial job safety training.

Attendant

A trained individual outside the confined space who acts as an observer of the authorized entrant within the confined space.

Authorized employees

Personnel who actually conduct the lockout/tagout and/or the servicing work on locked or tagged out equipment or systems. These employees will be trained and certified in all aspects of the program.

Blanking or blinding

The absolute closure of a pipe, line, or duct by fastening across it a solid plate or "cap" capable of withstanding the maximum upstream pressure.

Calibration or realization

A laboratory or bench top resetting of alarm points, spans, and zeros, if applicable, according to manufacturer's specifications.

Double block and bleed

The isolation of a confined space from a line, duct, or pipe by locking or tagging open to the outside atmosphere, a drain or bleed in the line, between the two closed valves.

Enaulfment

The surrounding and overwhelming of a person by finely divided particulate matter or liquid (coal or fuel).

Entrant

Any employee who is trained and authorized to enter a permit-required confined space.

Entry permit system

The system for ensuring safe entry into and work within confined spaces.

- a. Entry. Any action that results in any part of an employee's face breaking the plane of any opening of the entry-confined space. This includes any ensuing work activities inside the confined space.
- b. Entry permit. The written authorization for entry under defined conditions into a confined space for a stated purpose during a specified time. Entry permits (completed and authenticated) will be made available to all confined-space entrants by posting the permit at the entry portal so that entrants can confirm that pre-entry preparations have been completed.

Field check

A method of checking an instrument for a proper response in the field. It is a functional check of the instrument and is a pass/fail or go-no/go check.

Ground fault circuit interrupter (GFCI)

A device that interrupts the electric circuit to the load when a fault current to ground exceeds a predetermined value that is less than that required to operate the over-current protective device of the supply circuit.

Hazardous atmosphere

An atmosphere presenting a potential for death, disablement, injury, or acute illness from one or more of the following causes:

- a. A flammable gas, vapor, or mist in excess of 10 percent of its lower flammability limit.
- b. An airborne, combustible dust at a concentration that obscures vision at a distance of 5 feet or less.
- c. An atmosphere with less than 19.5 percent or more than 23.5 percent oxygen.
- d. An atmospheric concentration above the listed numerical value of the threshold limit values of any toxic, corrosive, or asphyxiate substance listed in the current edition of the American Conference of Governmental Industrial Hygienists, Threshold Limit Values and Biological Exposure Indices.
- e. An atmospheric concentration of any toxic, corrosive, or asphyxiate substance listed in 29 CFR 1910 above the listed numerical value of the permissible exposure limit.
- f. An atmospheric concentration above the numerical limit in the material safety data sheet prepared in conformance with 29 CFR 1910.1200 or that is otherwise known to present a safety or acute health hazard.
 - g. Any condition immediately dangerous to life or health.

Hot work permit

The written authorization to perform operations such as welding, cutting, burning, or heating that could provide a source of ignition.

Immediately dangerous to life or health (IDLH)

Any condition that poses an immediate threat to life or that is likely to result in acute or immediate severe health effects.

Immediate severe health effects

Any acute, clinical sign of a serious, exposure-related reaction manifested within 72 hours after exposure.

Incidental employees

An employee who, under normal circumstances, would not be in an area where a system is under lockout and tagout but is required to enter or pass through such an area.

Inerting

Rendering the atmosphere of a confined space nonflammable, nonexplosive, or otherwise chemically nonreactive by displacing or diluting the original atmosphere with steam or a gas that is nonreactive with respect to the contents of the space. Nitrogen is a common inerting gas.

Ionizing radiation

Electromagnetic or particulate radiation capable of producing ions, directly or indirectly, in its passage through matter. Alpha and beta particles, gamma rays, x-rays, and neutrons are examples of ionizing radiation.

Ionizing radiation producing devices

Electronic devices that are capable of generating ionizing radiation such as x-ray machines, industrial radiographic equipment, electron microscopes, certain electromagnetic generators such as klystron, magnetron, or other electron tubes that produce x-rays.

Isolation

Possibly preventing any unwanted form of energy or other agent with a serious potential for hazard from entering the confined space through the use of blanking, double block and bleed, or lockout/tagout.

Line breaking

The intentional opening in a confined space of a pipe, line, or duct that is or has been carrying flammable, corrosive, or toxic material, inert gas, or any fluid at a pressure or temperature capable of causing injury.

Lockout

The preferred method of isolating machines or equipment from energy sources. Lockout is the placement of a padlock on a power source device that physically holds an energy control point, such as a switch, lever, or a valve handle in the off position and makes it impossible to operate.

Non-ionizing radiation

Electromagnetic or other radiation of insufficient energy to cause excitation of atoms with which it interacts; this includes: ultraviolet, infrared, and high-intensity visible light, including laser radiation, radio frequency radiation and microwaves.

Not permitted condition

Any condition or set of conditions where the hazard potential exceeds the limits authorized by the entry permit.

Oxygen deficient atmosphere

An atmosphere containing less than 19.5 percent oxygen by volume.

Oxygen enriched atmosphere

An atmosphere containing more than 23.5 percent oxygen by volume.

Qualified supervisor

A supervisor who is trained to recognize and evaluate the hazards of confined space. The supervisor must possess sufficient knowledge to ensure that workers are property trained and qualified to work in a confined space.

Radiation safety officer

An individual qualified in radiation safety, appointed by the commander, who is responsible for developing and implementing the radiation protection program. Also local radiation safety officer.

Radiation sources

Materials, equipment, or devices that spontaneously generate or are capable of generating ionizing radiation. Examples include naturally occurring or accelerator produced radioactive materials, particle generators and accelerators, x-ray diffraction equipment, and nuclear moisture or density gauges.

Radioactive materials

Naturally occurring radioactive isotopes such as radium and radon, as well as by-products, source and special nuclear material, or contaminated materials capable of emitting particulate or electromagnetic radiation.

Real time monitoring

The conducting of tests throughout the course of an operation with not more than 15 minutes between tests.

Retrieval line

A line or rope secured at one end to a worker's chest/waist or full-body harness, or wristlets with the other end secured to a lifting or other retrieval device or to an anchor point located outside the entry portal. The retrieval line will be used to remove an unconscious entrant from a confined space.

Roentgen equivalent mammal (rem)

A unit of dose equivalent. The dose equivalent in rem is numerically equal to the radiation absorbed dose (rad) multiplied by the quality factor and any other necessary modifying factor.

Shop rescue team

A group of two or more employees who are designated and trained to perform rescues from confined spaces.

Tagout

Tag placement on an energy-isolating device to indicate the energy-isolating device and the equipment being controlled may not be operated until the tagout device is removed. If a lockout device cannot be used the tagout method will be used. Each activity/shop (electric shop, equipment repair, etc.) will maintain a log of all tags issued. The log will contain the system/equipment to be tagged out, the date tagged, the person tagging it out, and the date the system/equipment is returned to service.

- a. Affected employees. Operators of machines or equipment on which servicing or maintenance is being performed under lockout or tagout, or whose job requires him/her to work in an area in which such servicing or maintenance is being performed.
- b. Authorized employees. Trained and certified maintenance and servicing personnel who conduct service and/or maintenance on machines or equipment that produce energy sources to include lockout or tagout procedures.
- c. Lockout. The placement of a locking device that physically holds an energy-control point, such as a switch, lever, or a valve handle in the off position and makes it impossible to operate or release its energy. This is the preferred method of isolating machines or equipment from energy sources.
- d. Tagout. The placement of a tag on an energy-isolating device indicating that the equipment controlled by the device is being serviced/maintained and will not be operated. Each activity/shop will maintain a record identifying the equipment being tagged out, the date of the tagout, the person applying the tag, and the date the tag was removed.